Widdington Recycling Centre, Haverhill

Preliminary Ecological Appraisal and Biodiversity Net Gain Assessment

Final Report

May 2024

Prepared for:

Leivers Consultancy Ltd

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Prepared by	Sian Selkirk BSc Assistant Ecologist Sophie Wright BSc MSc ACIEEM Ecologist
Reviewed by	Rebekah Beaumont BSc MCIEEM Senior Ecologist

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Contract

JBA Project Manager	Sophie Wright
Address	1 Coleshill House, Station Road, Coleshill, B46 1HT
JBA Project Code	2024s0632

This report describes work commissioned by Mark Leivers of Leivers Consultancy Ltd on behalf of Widdington Recycling Ltd, by an instruction dated 12th April 2024. Sophie Wright of JBA Consulting carried out this work.

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The methodology adopted and the sources of information used by JBA in providing its services are outlined in this Report. The work described in this Report was undertaken in May 2024 and is based on the conditions encountered and the information available during the said period. The scope of this Report and the services are accordingly factually limited by these circumstances.

Where field investigations are carried out, these have been restricted to a level of detail required to meet the stated objectives of the services. The results of any measurements taken may vary spatially or with time and further confirmatory measurements should be made after any significant delay in issuing this Report.

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Abbreviations

BNG	Biodiversity Net Gain
CIEEM	Chartered Institute of Ecology and Environmental Management
DEFRA	Department of the Environment, Food and Rural Affairs
JNCC	Joint Nature Conservation Committee

NERC	Natural Environment Research Council
NGR	National Grid Reference
NPPF	National Planning Policy Framework
PPG	Planning Policy Guidance

Executive Summary

JBA Consulting were commissioned to undertake a Preliminary Ecological Appraisal (PEA) and Biodiversity Net Gain (BNG) assessment in relation to a revised planning application for the construction of a new Waste Transfer Station (WTS) and associated infrastructure in Haverhill, Suffolk.

A habitat survey was conducted on 8th May 2024 using UKHab methodology to identify, map and condition assess the habitats on site. The site was assessed for its potential to support protected species, and a search for invasive species was also undertaken. The site consisted of unsealed, unvegetated urban land with broadleaved woodland, hedgerow and urban trees at the fringes. These natural habitats within the site boundary provide suitable habitat for nesting birds and commuting bats. Without appropriate mitigation - which is outlined in this report - there may be impacts to them.

When inputted into the Statutory Biodiversity Metric the baseline habitat units were 1.84, hedgerow units 0.50. Within the current proposal there will be a loss of individual urban trees, with an increase in developed land; sealed surface, and buildings. The result of this is a 12.41% net loss for habitat units and an 8.89% net gain for hedgerow units.

When considering the current enhancements proposed and spatial limitations of the site's design, it is not considered feasible that the project can deliver a biodiversity gain within the boundary. Recommendations for next steps, including off-site delivery or purchase of credits are discussed.

1 Introduction

1.1 Project background

This report has been prepared for Leivers Consultancy Ltd on behalf of Widdington Recycling Ltd in relation to the construction of a new Waste Transfer Station (WTS) and associated infrastructure in Haverhill, Suffolk, hereafter referred to as 'the site'.

JBA Consulting was commissioned to undertake a Preliminary Ecological Appraisal (PEA) and Biodiversity Net Gain (BNG) assessment to support the planning application to identify any likely ecological constraints to the proposed works. Where applicable, recommendations for further surveys, mitigation and ecological enhancements have been provided in relation to the ecological receptors likely to be impacted upon.

The purpose of this assessment is to quantify the biodiversity value of the site prior to development, and the predicted value post-development. This is measured in biodiversity units calculated according to the habitats present based on their size, distinctiveness and condition using the Defra Statutory Biodiversity Metric. This enables quantification of the predicted change in biodiversity value as a result of the proposed development, with the objective of achieving a net gain in biodiversity.

The net gain considered in this report is separate from any biodiversity requirements resulting from protected species assessment and protected sites assessments.

1.2 Site location

The site is located within an industrial estate in Haverhill, Suffolk (NGR: TL 68069 44525), as shown in Figure 1-1. To the north and east, the site is bordered by existing industrial units, and a band of woodland is present along the sites' south-western boundary.

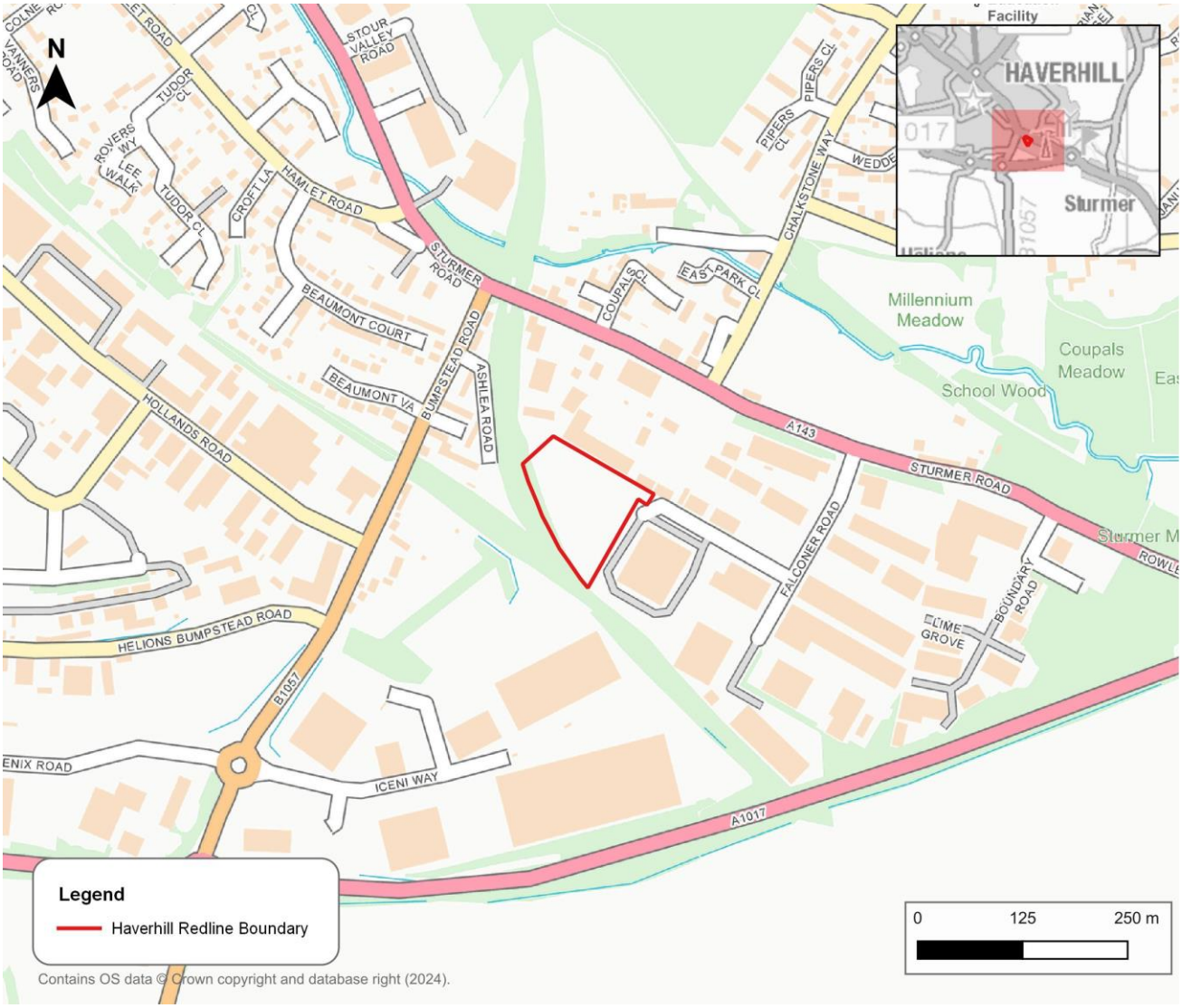

Figure 1-1: Site Location

1.3 Proposed development

The development consists of the construction of a new weighbridge and office, waste transfer station, welfare and office buildings, a series of concrete retaining walls and an enclosed bay. The works will also include an underground oil and silt interceptor tank, drainage inspection chambers and a water attenuation tank. Full proposed designs are shown in Appendix D.

1.4 Biodiversity Net Gain Background, Policy and Legislation

Biodiversity Net Gain in development is defined as 'development that leaves biodiversity in a better state than before' (Baker *et al*., 2019). The Statutory Defra Biodiversity Metric uses habitat as a proxy for wider biodiversity, and as such habitat types are scored according to their relative biodiversity value. The value is adjusted according to the quality of the habitat (measured according to area, distinctiveness, condition and strategic significance) to give the 'unit' value for habitats, hedgerows and rivers. The biodiversity units predicted from habitat creation take into account time to target condition and difficulty of creation as well these quality measures.

The National Planning Policy Framework (NPPF) states that planning policy should identify and pursue opportunities for securing measurable gains for biodiversity. The Natural Environment Planning Policy Guidance (PPG) (updated June 2021) provides further explanation on this by addressing a range of topics including biodiversity conservation, from individual site and species protection through to the supporting of ecosystem services, and the use of local ecological networks to support the national Nature Recovery Network. The PPG promotes the delivery of measurable BNG through the creation and enhancement of habitats alongside development.

The Environment Act 2021 was enacted in November 2021, and this mandated that BNG should be delivered at a minimum of 10% through the planning system. There was a two-year transition period to allow for the making of necessary secondary legislation before the 10% BNG requirement became legally enforceable on 12th February 2024.

The appraisal has been compiled with reference to the following relevant nature conservation legislation, planning policy and the UK Biodiversity Framework from which the protection of sites, habitats and species is derived in England.

- The Natural Environment and Rural Communities (NERC) Act 2006
- The UK Post-2010 Biodiversity Framework (2011-2020) (JNCC and DEFRA,
- 2012)
- Biodiversity 2020: A strategy for England's wildlife and ecosystem services (DEFRA, 2011)
- UK Biodiversity Action Plan (UKBAP)
- The National Planning Policy Framework (NPPF) 2019 (DCLG, 2021)

2 Methods

A PEA of the site has been undertaken in line with current best practice guidance (CIEEM, 2017) and included:

- A desk-based assessment to identify any records of protected and/or priority habitats and species, and designated nature conservation sites in the vicinity of the proposed works.
- A site survey comprising a Phase 1 Habitat Survey including an assessment of the possible presence of protected or priority species, and (where relevant) an assessment of the likely importance of habitat features present for such species.
- An assessment of the potential impacts of the works on the habitats and species present (or likely to be) in the survey area.

2.1 Desk-based assessment

Prior to undertaking the site survey, searches of databases containing ecological records, priority habitats, and information on statutory and non-statutory designated sites were made. The following sources were included in these searches:

- MAGIC mapping service (www.magic.gov.uk)
- Natural England GIS data (www.gis.naturalengland.org.uk/pubs/gis/GIS_register.asp)
- Essex Field Club (EFC) data
- Suffolk Biodiversity Information Service (SBIS)

Due to the proposed small working area of the development, it is considered that the zone of influence would be up to 2 km from the site. Therefore, a 2km search was conducted from the approximate centre point of the route.

2.2 Site survey

A site survey was undertaken on 8th May 2024 by experienced ecologist Sophie Wright BSc MSc ACIEEM.

2.2.1 Protected and priority species

For protected and priority species, the ecologist assessed the suitability of the habitats surrounding the routes to support these species. Based upon this assessment, potential constraints to the project were identified and recommendations for further surveys and mitigation have been made. Legislative guidance relating to protected species is outlined in Appendix A, along with details of other relevant policy and legislation.

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2.2.2 Other priority species and environmental constraints

During the site survey, any signs or sightings of other priority species were also recorded.

2.2.3 Invasive non-native species

Any Invasive Non-native Species (INNS) observed during the survey were recorded. For stand-forming plant species, the extents of such stands were noted.

2.3 Habitats

Habitats were mapped to level 5 of the UK Habitat Classification scheme implemented using the field key with reference to the relevant definitions (UKHab Ltd 2023). Secondary codes were added where relevant to provide information on the management and environment relating to any particular habitat parcel. The classification was made using surveyor judgement by eye, with a species list collected for each of the main habitat parcels. Condition of the habitats was assessed to identify their potential for contributing to the BNG score for the scheme. Botanical nomenclature follows Stace (2019). These habitats were converted to the corresponding habitat used in the BNG Statutory Metric. Maps of these habitats are provided in Section 3.2.

2.3.1 Mapping

The field data were mapped in QGIS. The polygons were mapped to the Open Street Map layer. Aerial imagery was used to guide the retrospective mapping, to ensure that the mapping was true to baseline, and not conditions observed on site. The GIS shapefile was used to calculate areas automatically based on the EPSG:27700 - OSGB36 / British National Grid which may slightly underestimate total areas where there is significant topographic variation.

The post works habitats were then mapped in QGIS to give an estimate of their areas and used to calculate the approximate area of habitat that will be lost. The post works mapping was based upon .dxf /.dwg / .pdf files provided by the project team.

2.4 Statutory Biodiversity Metric calculation

The Statutory Biodiversity Metric has been used in this assessment. The Small Sites Metric could not be used due to the site being over 0.5ha (c. 1.35ha) in size. It should be noted that the 10% gain should be achieved separately in all categories that are present within the baseline (i.e., area habitats, hedgerows and watercourses). In this instance, the 10% gain is required for area habitats and hedgerows, as there are no watercourses within 10m of the site boundary.

2.4.1 Distinctiveness

The Statutory Biodiversity Metric automatically pre-populates the distinctiveness scores for each inputted habitat. Distinctiveness is based on the type of habitat and its distinguishing features including consideration of species richness, rarity (at local, regional, national and

international scales), the extent to which it is protected by designations and the degree to which a habitat supports species rarely found in other habitats (Baker *et al*., 2019).

2.4.2 Condition

The Statutory Biodiversity Metric uses habitat condition as one of the measures of habitat quality. Habitat condition was assigned following guidance from the 'Technical Supplement' document (DEFRA, 2023) which accompanies the Statutory Biodiversity Metric Assessment criteria.

For the proposed created habitats, condition is based on the assumed management of the habitats to give an estimate of their condition post creation. A precautionary approach was taken to ensure the value of habitats was not over estimated.

2.4.3 Area and length

The area or length of each baseline and post works habitat is calculated from the digitised UKHab map as described in 2.3.1. Linear habitats are assessed separately, and area-based habitats are joined underneath linear features, such that the value used in the assessment is a slight over-estimate of their actual area.

2.4.4 Strategic significance

Strategic significance relates to the spatial location of a habitat parcel and works at a landscape scale. It gives additional biodiversity unit value to habitats that have been identified as habitats of strategic importance to that local area (Baker *et al*., 2019). The documents reviewed included:

- Haverhill Vision 2031 (St Edmundsbury Borough Council, 2014)
- Core Strategy (St Edmundsbury Borough Council, 2010)
- Suffolk Local Biodiversity Action Plan (Suffolk Biodiversity Partnership Planning Support Group, 2012)
- Biodiversity Net Gain Interim Planning Guidance Note for Suffolk (Ipswich Borough Council *et al*., 2023)

In addition, the following policies from the Haverhill Vision and Core Strategy were considered to assign habitats and areas in the scheme a strategic significance:

- Policy HV18 - Green Infrastructure in Haverhill
- Policy CS2 - Sustainable Development
- Strategic Objective H - To maintain, protect and enhance the biodiversity geodiversity and natural environment and seek opportunities to increase the provision of green open space and access to the countryside

2.4.5 Trading Rules

Trading rules are a key part of the Statutory Biodiversity Metric and apply the principle that any loss of habitat is replaced on a 'like for like' or 'like for better' basis. The trading rules

applied for individual habitats are based on their distinctiveness. Therefore, loss of habitats of very high distinctiveness (i.e. irreplaceable habitats) are not permitted, and a bespoke assessment and compensation will be required. For habitats of high distinctiveness, losses must be replaced with biodiversity units of the same habitat type. For medium distinctiveness habitats, losses must be replaced with habitat from the same broad habitat type by any habitat from a higher distinctiveness band. Low distinctiveness habitats must be replaced with a habitat of the same distinctiveness or by any habitat from a higher distinctiveness band. Habitats of very low distinctiveness do not require replacement.

2.5 Assumptions and limitations

The habitats and species present in a given area are subject to change over time. A single field visit of this nature captures and reports the situation at the time of survey. As such, the advice contained within this report is considered valid for a period of 18 months before a review on the need for an updated survey/assessment must be made by an ecologist (CIEEM, 2019).

The accuracy of habitat area measurements is limited by the form of baseline data collection and resolution of development proposal plans. In this instance, baseline habitat areas have been calculated within GIS, based upon the findings of the site visit cross-referenced with aerial imagery. Post-development habitat areas have been calculated from .dxf /.dwg / .pdf files provided.

No access into the woodland to the south-western boundary of the development was possible, and as such, only assessment from the edge was possible. Several condition criteria could not be adequately assessed . As the woodland will not be impacted as a result of the works, this is not considered to be a limitation to the assessment.

The site baseline was retrospectively assessed using a combination of site assessment and aerial imagery review, due to the proposed works having commenced at the time of survey.

3 Results

3.1 Desk-based assessment

3.1.1 Statutory designated sites

The study area directly borders one statutory designated site: Haverhill Railway Walks Local Nature Reserve (LNR). The LNR runs along the southwestern boundary of the site as shown on Figure 3-1 below. No further statutory sites are present within 2km of the study area. Due to the works taking place only within the site boundary, no adverse impacts are expected on the LNR.

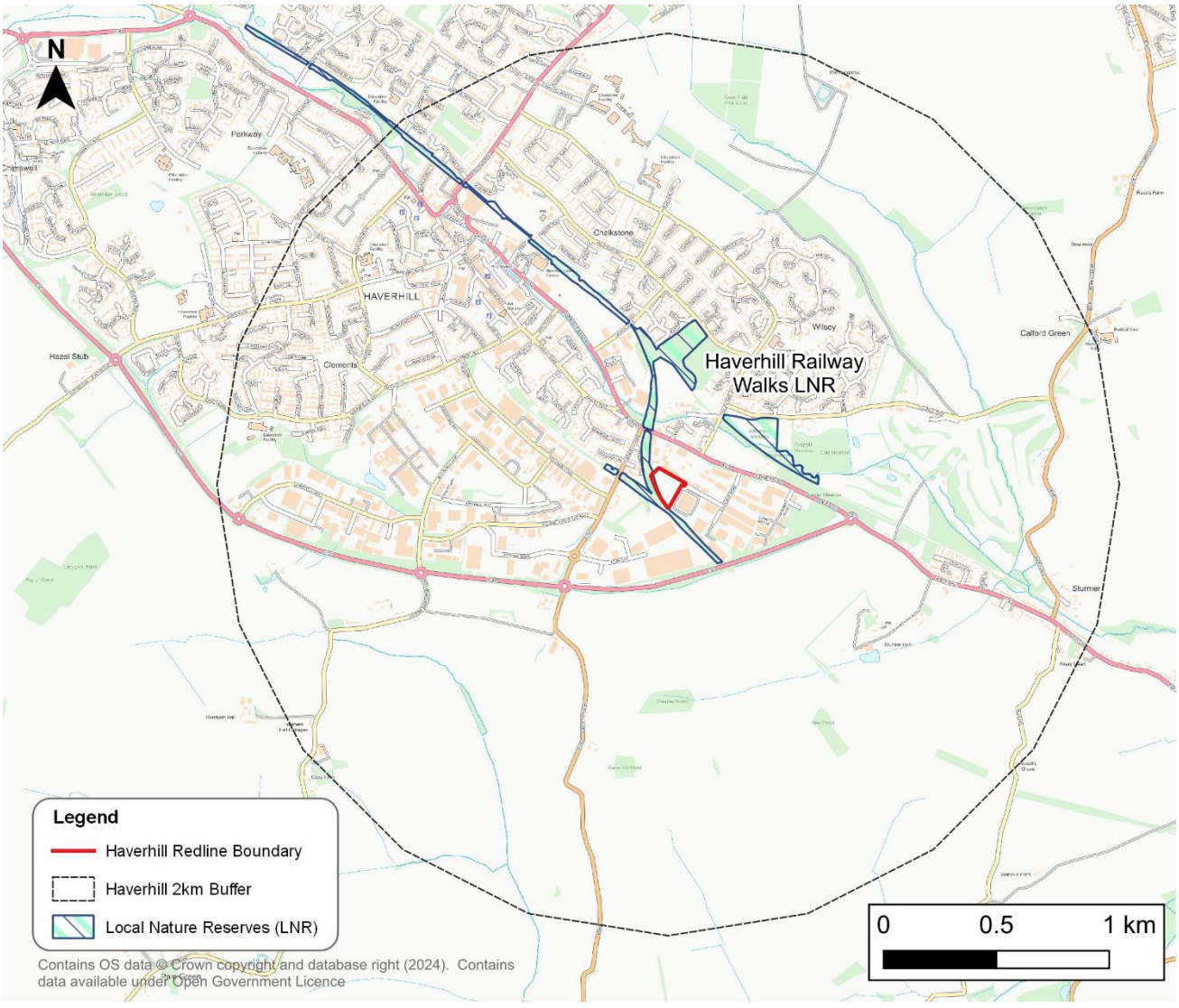

Figure 3-1 Statutory designated sites within the 2km search area

3.1.2 Non-statutory designated sites

In total, 13 non-statutory designated sites were identified by the EFC and SBIS data searches, with one intersecting the site boundary. The designation intersecting the site boundary is B-Lines, as shown on Figure 3-2 below. The proposed works are not expected to have long-term impacts the B-lines, as any vegetation removed will be replaced and they will not remove any commuting corridors for wildlife, including pollinators. The other non-statutory designated sites within 2km of the study area comprise of three Essex Local Wildlife Sites (LOWS), three County Wildlife Sites, one Common Land area, one Ancient Woodland, one Wood Pasture and Parkland Priority Habitat, and two Traditional Orchards.

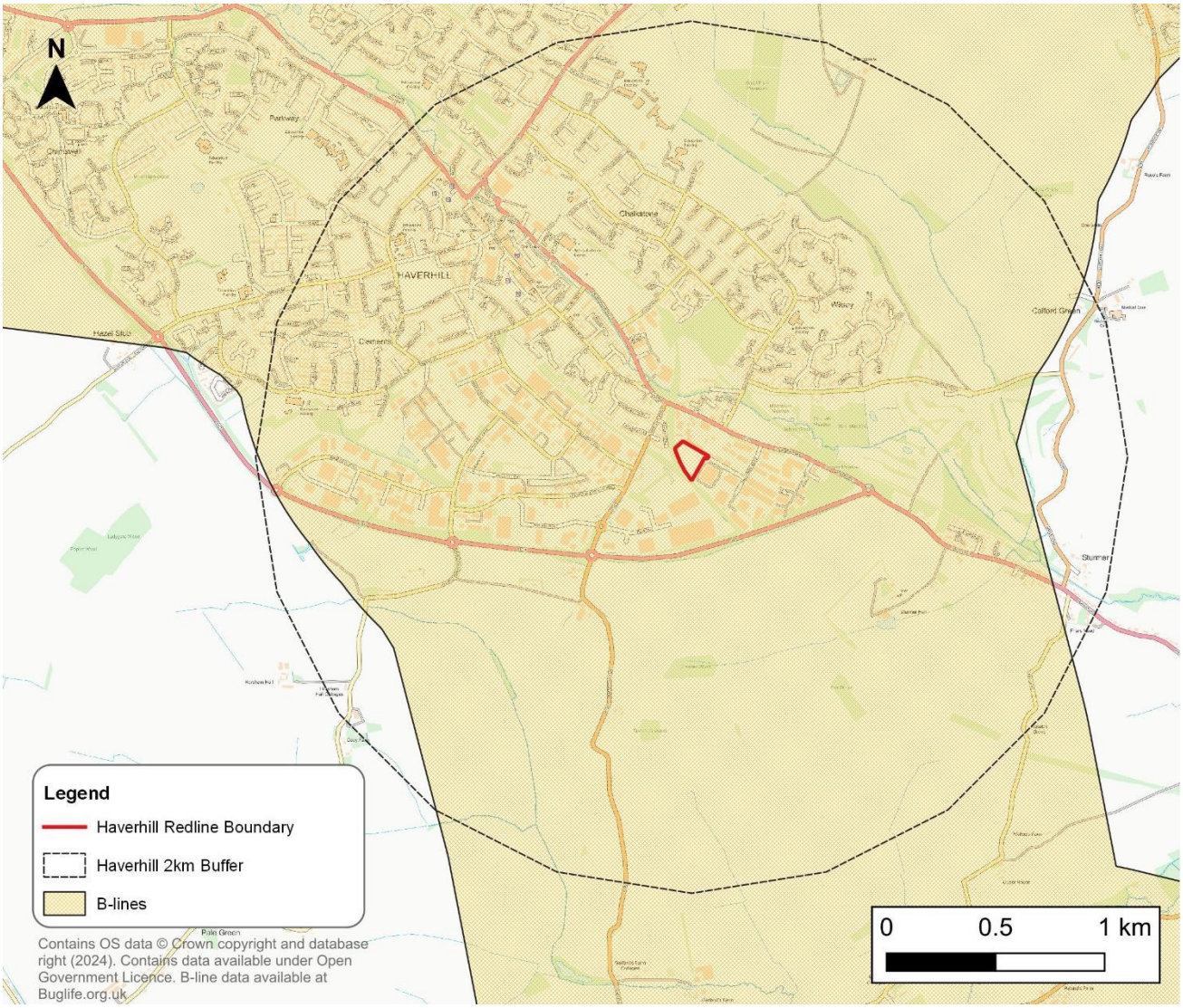

Figure 3-2 Non-statutory designated sites intersecting the study area

[redacted]

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[redacted]

3.1.4 Invasive non-native species

Six records of Invasive Non-Native plant Species (INNS) were returned in the data search. The species are listed under Schedule 9 of the Wildlife and Countryside Act 1981, which prohibits their release into the wild. The most recent record of each species, and record with closest proximity to the site for each species is included in. Only records post-2000 are included.

Table 3-2 Invasive species records held by EBRC and SBIS

Common Name	Scientific Name	Proximity and date
Plants		
Three-cornered Garlic	*Allium triquetrum*	1km (2021)
New Zealand Pygmyweed	*Crassula helmsii*	<0.1km (2021)
Japanese Knotweed	*Fallopia japonica*	0.3km (2018)
Giant Hogweed	*Heracleum mantegazzianum*	<0.1km (2021)
Himalayan Balsam	*Impatiens glandulifera*	1km (2021)
Japanese Rose	*Rosa rugosa*	1km (2021)

3.2 Site survey

3.2.1 Priority and protected species

Amphibians, including Great Crested Newt

No ponds are present within the site. One pond was identified by review of aerial imagery maps, approximately 450m north-east of the site, at NGR: TL 68535 44797 in East Town Park. [redacted] However, the site does not provide suitable habitat for terrestrial amphibians, and the A413 likely acts as a barrier to their movement. Furthermore, no records of amphibians were returned in the data search. It is therefore highly likely that [redacted] is absent from the site.

Birds

Only the hedgerow and woodland at the fringes of the site provide suitable habitat to support nesting birds. None of the protected and priority species identified by the desk study was recorded during the site visit, with only common species including Blue Tit *Cyanistes caeruleus*, Chiffchaff *Phylloscopus collybita* and Great Tit *Parus major* incidentally recorded. It is therefore likely that the natural habitats at the site edges are important for nesting birds.

[redacted]

[redacted]

[redacted]

Invertebrates

Only the hedgerow and woodland at the fringes of the site provide suitable habitat to support terrestrial invertebrates. None of the priority species identified in the desk study was recorded on site.

Reptiles

No records of reptiles were returned in the data search. Although the woodland and hedgerows at the fringes of the site may provide sheltering habitat, the site lacks suitable basking and foraging areas. Furthermore, the site is subject to high levels of noise, vibration, and physical disturbance. As such, the site is not considered suitable to support reptiles.

3.2.2 Invasive non-native species

No invasive species were recorded during the site survey, despite records of several species within close proximity being identified in the data search.

3.2.3 Baseline habitats

The baseline habitats are mapped in Figure 3-3. Further details are provided in the following sections. Condition assessment forms are provided in Appendix: Habitat Condition Assessment. The site was largely comprised of unsealed, unvegetated urban surface, with fringing woodland, hedgerow with trees and individual urban trees. No watercourses are present within 10m of the site, therefore, they have not been included in the assessment.

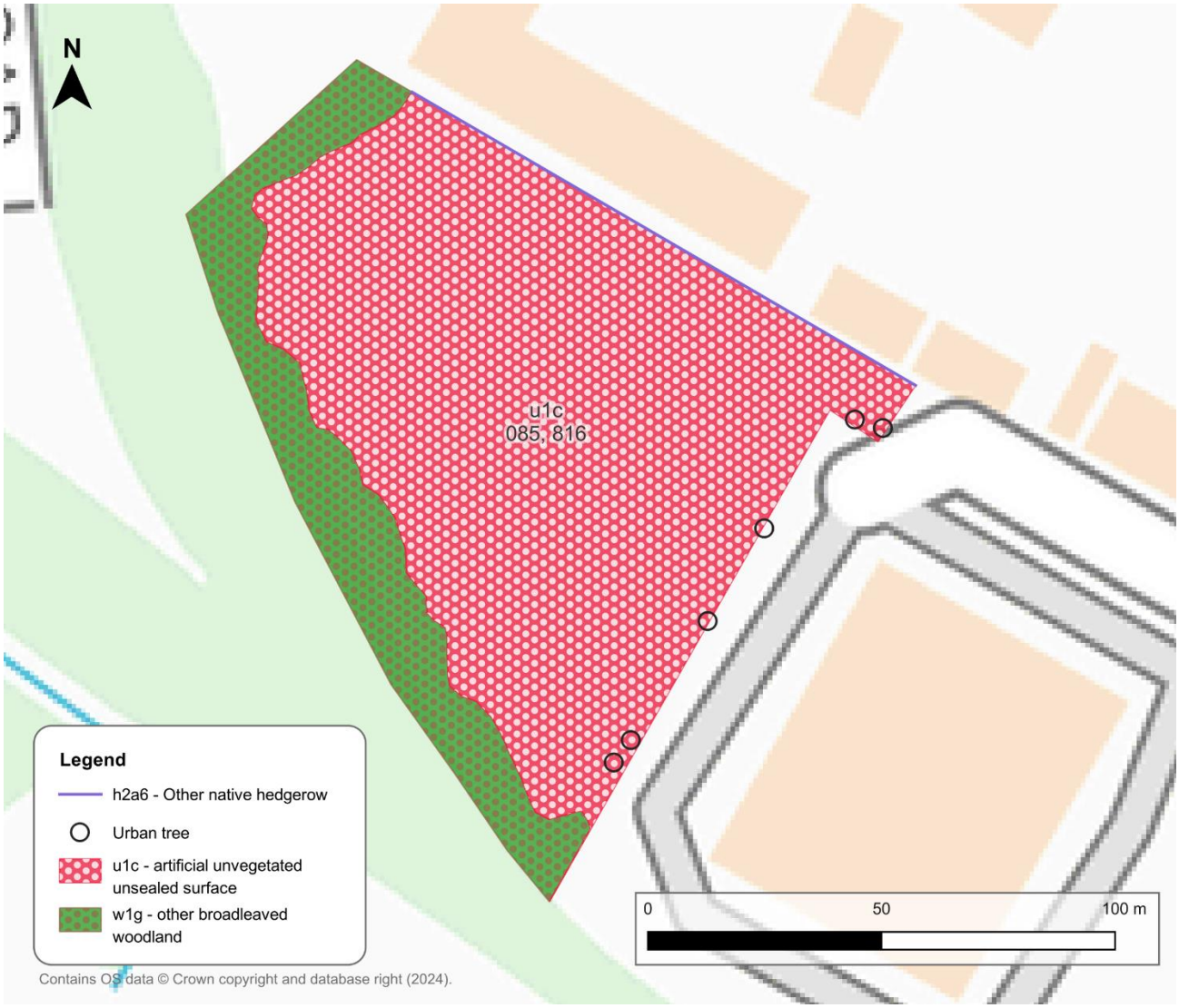


Figure 3-3: Baseline habitats

3.2.4 Area based habitats

Table 3-3 summarises the baseline habitat areas and conditions. The terrestrial habitats on site include:

- Artificial unvegetated, unsealed surface. This parcel includes the bulk area of the site.
- Other broadleaved woodland. Although not rooted within the site, the canopy of a broadleaved strip of woodland overhangs the site along its south-western boundary and must be included in the metric. Mature species include Hazel *Corylus avellana*, Oak *Quercus robur* and Sycamore *Acer pseudoplatanus*.
- Urban tree. This includes the trees along the eastern boundary of the site. At the time of survey, four of the six trees had already been cleared. There is therefore no information on their species or condition, although a review of aerial imagery shows they were all broadleaved. The trees which had been cleared prior to the

site survey were assigned to the same category as the remaining trees: in 'moderate' condition.

Table 3-3: Baseline habitat units on site

BNG Habitat	Condition	Area (Ha)	Strategic significance	Habitat units
Artificial unvegetated, unsealed surface	N/A	1.0946	Area/compensation not in local strategy/ no local strategy	0
Other broadleaved woodland	Poor	0.2578	Formally identified in local strategy	1.19
Urban tree	Moderate	0.0814	Area/compensation not in local strategy/ no local strategy	0.65
Total				1.84

3.2.5 Hedgerow habitats

The north-eastern boundary of the site is lined with a hedgerow with trees. Species include Bramble *Rubus fruticosus* agg., Hawthorn *Crataegus monogyna*, Hedge Bindweed *Calystegia sepium*, Lawson Cypress *Chamaecyparis lawsoniana* and Sycamore. Table 3-4 summarises the baseline hedgerow lengths and conditions on site. This line of trees will be retained during the development.

Table 3-4: Baseline hedgerow units on site

BNG Habitat	Condition	Length (km)	Strategic significance	Habitat units
Native hedgerow with trees	Poor	0.1248	Area/compensation not in local strategy/ no local strategy	0.50

3.2.6 Proposed post-works habitats

The post works habitats are shown mapped in Figure 3-4. The assumed conditions are based upon the Statutory Biodiversity Metric condition assessment sheets and professional judgement.

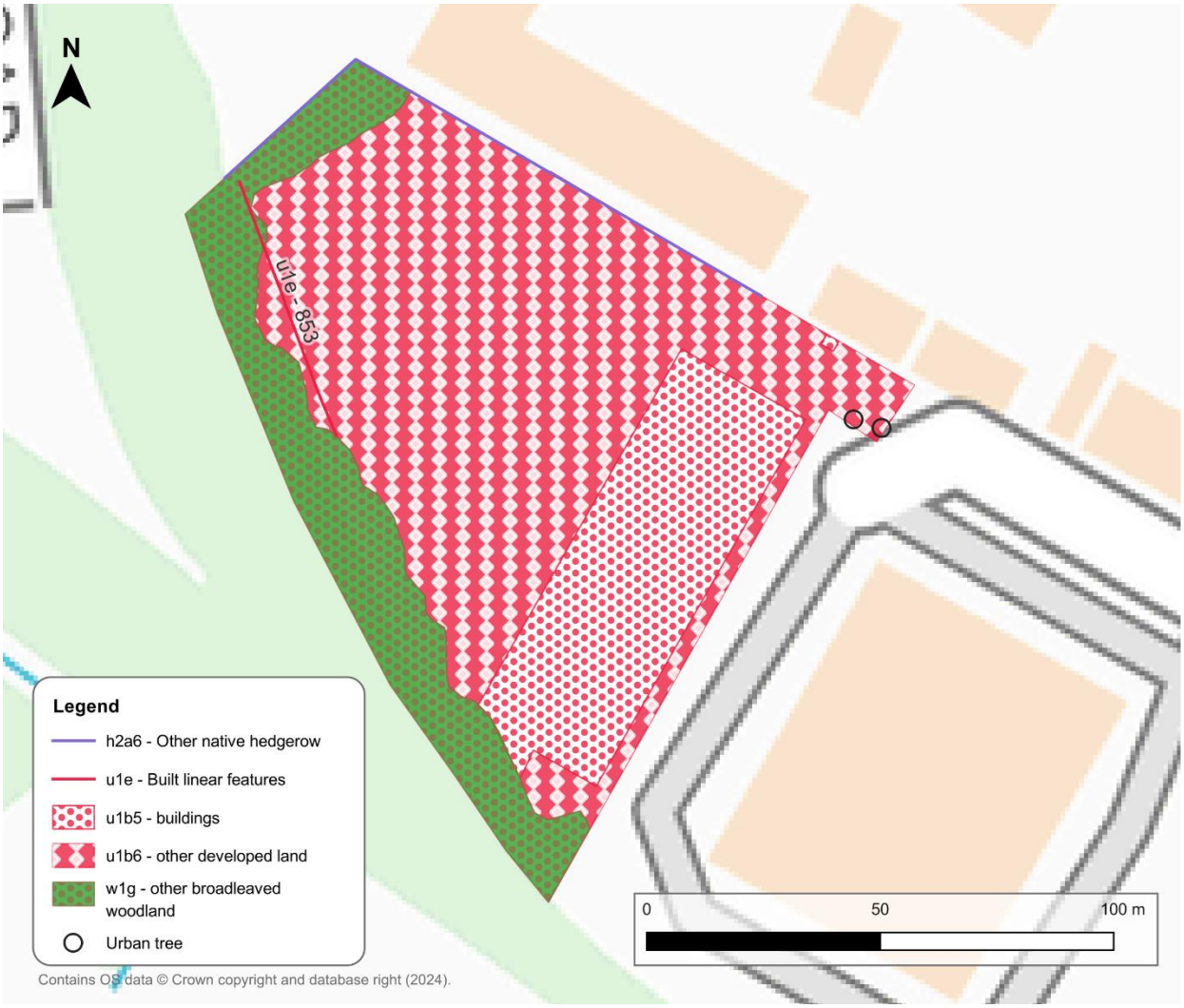


Figure 3-4: Post-works habitats

3.2.7 Habitat loss

The bulk area of the site will be changed from unsealed to sealed surface with some buildings. This does not constitute a loss in biodiversity units as both are considered urban habitats and therefore have zero value.

It is understood that the individual urban trees along the south-eastern boundary have been lost to facilitate development and will not be replaced. Two trees at the site entrance will be retained. A small section of the hedgerow with trees at the north-eastern boundary of the site has been removed to facilitate development. It is understood that this will be replaced with the same habitat upon completion of the works.

The broadleaved woodland will be retained in the north-western corner of the site; and complemented with hedgerow planting against the boundary wall.

The areas of habitat that will be lost as part of the scheme are given in Table 3-5 below. No other habitat losses are expected as part of the development.

Table 3-5: Habitat losses

BNG Habitat	Existing area (ha)	Area lost (ha)	Habitat Unit Value lost
Urban trees	0.0814	0.0285	0.23

3.2.8 Habitats creation and enhancement

3.2.8.1 Habitat units

No new areas of habitat are proposed for the development, and as such, the current proposals would result in a loss in biodiversity units.

3.2.8.2 Hedgerow units

Two native hedgerows with trees will be planted along the north-eastern and northern boundaries to replace the section lost to facilitate development. Another section of native hedgerow is proposed for the northern corner and north-western boundary, against the boundary wall. The planting will consist of locally sourced British native hedgerow shrubs. It is proposed to plant a mix of Blackthorn *Prunus spinosa*, Hawthorn, and Holly *Ilex aquifolium* to provide all-year-round foliage. The plants will be planted at 0.5m centres, doubled staggered rows with an approximate mix of 40%/40%/20% respectively. The plants will be 450mm-500mm whips (plus some larger trees) and all planting will be undertaken in accordance with the Forest Practice Note Number 8 Using Local Stock for Planting Native Trees and Shrubs, Forestry Commission (1999). 'Poor' condition has been assumed as this is the same condition as the hedgerows recorded in the baseline (largely due to intense management and confinement).

Table 3-6: Created hedgerow

BNG Habitat	Condition	Length (km)	Created units
Native hedgerow with trees	Poor	0.0689	0.27

4 Conclusions

4.1 Summary

The habitats within the site boundary comprise unsealed, unvegetated urban surface, with fringing woodland, hedgerow with trees and individual urban trees. Overall, the site has very little ecological importance due to its high coverage of unvegetated and disturbed habitats. [redacted]

The low value of baseline habitats means that minimal impacts are expected to occur on both habitats and protected and priority species found within the site.

Considering this, the remaining impacts could include:

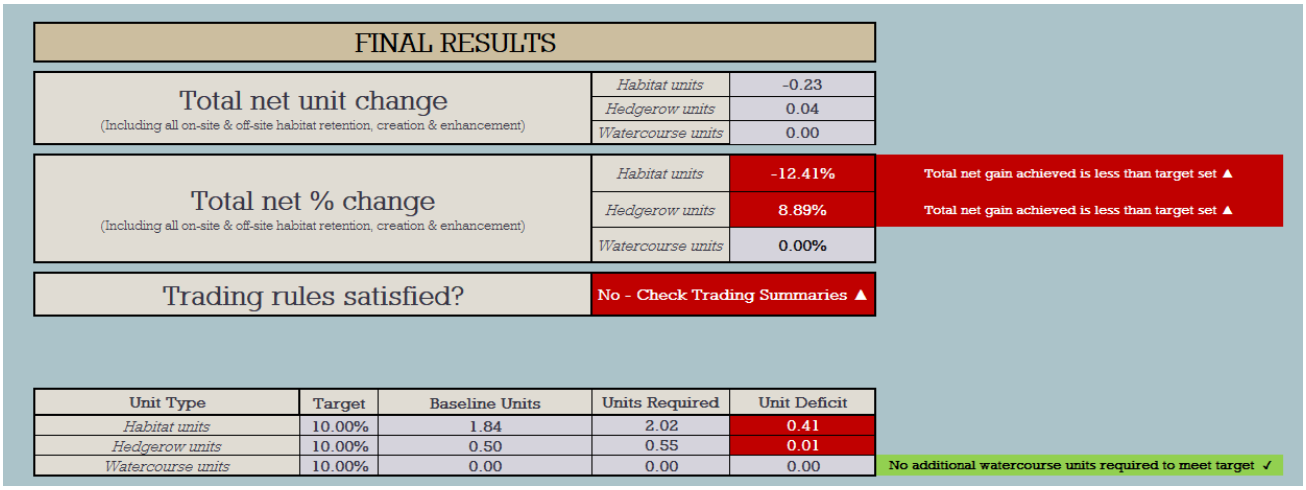
- Disturbance or destruction of an active bird nest.

4.2 Overall change in biodiversity units

A full copy of the Statutory Biodiversity Metric calculation spreadsheet is supplied as a separate document, provided in Excel format. In summary, the key findings of the BNG assessment are shown in Figure 4-1.

Within the current landscape proposals there will be a 12.41% net loss for habitat units and 8.89% net gain for hedge units.

There will be a small loss of 4 urban trees. As the property is a commercial recycling centre, there are few habitat creation/enhancement opportunities available to mitigate this loss. Any habitat creation is unlikely to be feasible, or large enough within the designed development to remove any net loss of habitats, especially given that construction has already begun.



FINAL RESULTS

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-0.23	
	Hedgerow units	0.04	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-12.41%	Total net gain achieved is less than target set ▲
	Hedgerow units	8.89%	Total net gain achieved is less than target set ▲
	Watercourse units	0.00%	
Trading rules satisfied?	No - Check Trading Summaries ▲		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	1.84	2.02	0.41	
Hedgerow units	10.00%	0.50	0.55	0.01	
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

Figure 4-1: Headline results from the Statutory Biodiversity Metric

4.3 Trading summary

Trading rules are not satisfied for habitat units due to the loss of urban trees, which are not being replaced. This is a habitat of medium distinctiveness. Therefore, this habitat would need to be replaced with a habitat of the same or better distinctiveness than the one being lost (i.e., medium or above). Losses of habitat areas (i.e., urban trees) cannot be mitigated with gains of linear habitats (i.e., hedgerow). Each habitat category needs to achieve the 10% gain separately.

Given the constraints of the site design and nature, it is currently not feasible to achieve net gain for habitat units within the boundaries of the site.

5 Recommendations

5.1 Recommendations

The following recommendations are made in order to avoid and/or mitigate against the potential ecological impacts of the proposed works.

5.1.1 Nesting birds

No further vegetation clearance is expected at the site. Any further pruning (to hedgerows or trees) should be undertaken outside of the bird nesting season (i.e., between September and February inclusive, when birds are not nesting). If this is not possible, an Ecological Clerk of Works should be employed to conduct a nesting bird check within 48 hours prior to clearance. If any evidence of nesting is identified, an appropriate exclusion zone will need to be put in place until the birds have finished nesting.

5.1.2 General avoidance measures

General avoidance measures that should be incorporated within the scheme include:

- Limit the hours of working to daylight hours, to limit disturbance to nocturnal and crepuscular animals;
- [redacted] the use of lighting at night should be avoided. If the use of lighting is essential, then a directional cowl should be fitted to all lights to prevent light spill and to be directed away from woodland, hedgerows and treelines;
- Contractors must ensure that no harm comes to wildlife by maintaining the site efficiently and clearing away materials which are not in use, such as wire or bags in which animals can become entangled; and
- Any pipes should be capped when not in use (especially at night) to prevent animals becoming trapped.
- Any excavations should be covered overnight to prevent animals from falling and getting trapped. If that is not possible, a strategically placed plank should be placed to allow animals to escape.

5.1.3 Biodiversity Net Gain

As outlined above, the current designs of the site do not allow for more on-site habitat creation. Therefore, either off-site gains or purchasing of credits should be investigated to achieve 10% uplift as required by the LPA.

The unit shortfall summary below shows the number of units the development is falling short of to achieve a 10% net gain. Habitat types in tier A1 include individual trees and heathland and shrub. Tier H comprises hedgerows. Full lists of habitats in each tier can be found in the Metric Calculation Tool.

Unit Shortfall by Tier/Module	
Tier	Unit Shortfall
A1	0.82 ▲
A2	0.00
A3	0.00
A4	0.00
A5	0.00
H	0.01 ▲
W	0.00

Figure 5-1 Unit shortfall summary.

Guidance on how to purchase credits can be found on the gov.uk website, if this is the preferred option. A clip of the approximate costs to achieve the 10% gain for both area habitat units and hedgerow habitat units, as provided by the gov.uk service, is shown in Figure 5-2 below.

Estimated cost of statutory biodiversity credits

£34,880 (excluding VAT)

Tier	Credits	Estimated cost
A1	0.82	£34,440
A2	0.00	£0
A3	0.00	£0
A4	0.00	£0
A5	0.00	£0
H	0.01	£440
W	0.00	£0
Total estimated cost		£34,880

Figure 5-2 Estimated cost of credits costs required to achieve 10% gains.

A Appendix: Relevant policy and legislation

The legislation discussed below is intended as a guide only and does not replace formal legal advice.

A.1 Natural Environment and Rural Communities (NERC) Act 2006

Section 40 of the Natural Environment and Rural Communities Act (2006) states that 'Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'. Section 40(3) also states that 'conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat'.

Section 41 of the NERC Act requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity. To meet this requirement, the England Biodiversity List (the S41 list) has been developed. Species and habitats listed under Section 41 of the NERC Act 2006, whilst not necessarily being legally protected, can be a material planning consideration.

The S41 list, which replaces the list published under Section 74 of the Countryside and Rights of Way (CRoW) Act 2000, should be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the NERC Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions.

A.2 Statutory designated nature conservation sites

Sites with statutory designations receive varying degrees of legal protection under UK statute. There are several statutory designations used for sites of high nature conservation value in the UK, which are applied depending upon the importance of the site in a local, regional, national or international context. This includes:

- Ramsar Sites (International designation)
- SAC and SPA (European sites)
- National Nature Reserves (NNR) and SSSI (National designations)
- Local Nature Reserves (LNR) (Local designation)
- Areas of Outstanding Natural Beauty (AONB)

A.3 Non-statutory designated sites

Non-statutory sites are afforded no statutory legal protection, but are normally recognised by local planning authorities and statutory agencies as being of local nature conservation value. The protection afforded to such sites is usually discretionary, through Local Plan policies. Non-statutory sites are designated by the local authority, usually in partnership with the County Wildlife Trust (or equivalent).

A.4 Protected species

Several species are protected under UK and international legislation. In the UK, primary protection is provided under the Wildlife and Countryside Act 1981 (as amended). Species of European importance receive additional protection in England under the Conservation of Habitats and Species Regulations 2017 (as amended); others may receive protection through specific legislation. Further details on specific species and their levels of protection are provided below.

A.4.1 Birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built;
- take, destroy or possess the egg of any wild bird.

Certain species, such as the Barn Owl, receive additional protection under Schedule 1, which makes it an offence to intentionally or recklessly disturb birds and also their young at, on or near an active nest.

A.4.2 Badger

Badgers are protected by the Protection of Badgers Act 1992 and the Wildlife and Countryside Act 1981 (as amended), Schedule 6. Under the Protection of Badgers Act, it is illegal to intentionally kill, capture, injure or ill-treat any Badger. It is also an offence to obstruct, destroy or damage a Badger sett or disturb Badgers within a sett. Disturbance is defined, for development purposes, as any activity that could damage a sett or be greater than what Badgers commonly tolerate.

A.4.3 Bats

All UK bat species are European Protected Species (EPS), protected under legislation listed below determined through regionality. In England and Wales, Regulation (Reg.) 43 of the England and Wales Habitats Regulations makes it an offence to:

- deliberately capture, injure or kill a bat
- intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- intentionally or recklessly obstruct access to a bat roost.

Under Section 9 of the Wildlife and Countryside Act 1981 (as amended), it is an offence (in relation to bats) to:

- intentionally or recklessly disturb a bat whilst it is occupying a roost;

- intentionally or recklessly obstruct access to any structure or place used by a bat for shelter or protection; or
- sell, offer, or expose for sale, or have in their possession or transports for the purpose of sale, any live or dead bat or any part of, or anything derived from a bat (or be responsible for adverts suggesting the intention to do this).

Bats are also protected in England and Wales under The Conservation of Habitats and Species Regulations 2017 (as amended), the Environment Act 2023, The Environmental Damage (Prevention and Remediation) (England) Regulations 2015, and The Environmental Damage (Prevention and Remediation (Wales) Regulations 2009.

A.4.4 Great Crested Newt

The Great Crested Newt *Triturus cristatus* is an EPS under the Conservation of Habitats and Species Regulations 2017 (as amended). This makes it an offence to:

- kill, capture or disturb a Great Crested Newt
- take or destroy the eggs of a Great Crested Newt
- damage or destroy the breeding or resting places of Great Crested Newt

It also receives additional protection under the Wildlife and Countryside Act 1981 (as amended) making it illegal to possess or control any Great Crested Newt, living or dead.

A.4.5 Invertebrates

Approximately 70 species of invertebrate species receive legal protection through Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). There are various levels of protection according to the rarity of the species. Offences include combinations of the following:

- Sale, or offering / exposing for sale;
- Possession;
- Intentional taking, killing or injuring;
- Intentionally / recklessly damaging or destroying its place of shelter / protection;
- Intentionally / recklessly disturbing it whilst occupying its place of shelter / protection;
- Intentionally / recklessly obstructing access to its place of shelter / protection Species with full protection under the Act include the Marsh Fritillary *Euphydryas aurinia*, Southern Damselfly *Coenagrion mercuriale* and Violet Click Beetle *Limoniscus violaceus*.

There are also over 400 invertebrate species listed under Section 41 of the Natural Environment and Rural Communities Act for England and under Section 7 of the Environment (Wales) Act 2016.

A.4.6 Reptiles and other amphibians

Legal protection varies considerably for different species. Under the Wildlife and Countryside Act 1981 (as amended) Adder *Viperus berus*, Grass Snake *Natrix helvetica*, Common Lizard *Zootoca vivipara* and Slow Worm *Anguis fragilis* are protected from intentional killing or injuring, additionally Common Frog *Rana temporaria*, Common Toad *Bufo bufo* and other newt species are prohibited from sale.

A.5 Invasive non-native species

Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) lists plant species, groups of plants and animal species for which it is illegal to plant, release, allow to escape or cause to spread into the wild. Examples of species listed on Schedule 9, which are most likely to be encountered, include Japanese Knotweed *Fallopia japonica* and Himalayan Balsam *Impatiens glandulifera*.

Some species are also classed as 'controlled waste' under the Environmental Protection Act 1990 and must be disposed of properly (i.e. Japanese Knotweed and Giant Hogweed *Heracleum mantegazzianum*). These provisions mean that, if these species occur on a site proposed for development or other work which may disturb the ground, control of these species is likely to be required.

B Appendix: Habitat Condition Assessment

Table 5-1: Individual trees condition sheet

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
		All individual trees on site	
A	The tree is a native species (or at least 70% within the block are native species).	Y	Presumed for trees already removed.
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y	
C	The tree is mature (or more than 50% within the block are mature).	Y	
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	N	Trees appear regularly pruned. Concrete flooring present close to trees, likely impacting their root systems and overall health.
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N	No features noted
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y	100% of tree canopy is oversailing vegetation
Number of criteria passed		4	
Score achieved		Moderate	

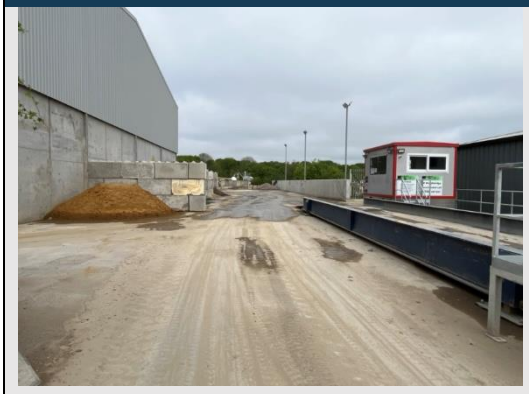
Table 5-2: Hedgerow condition sheet

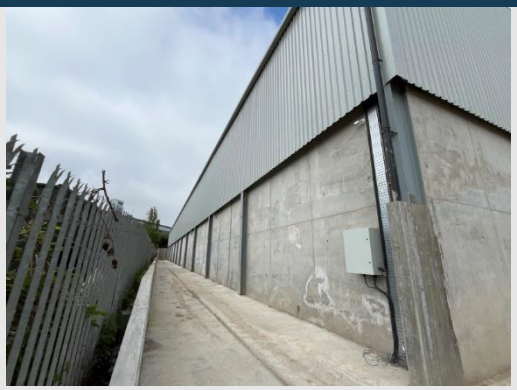
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
		North-eastern boundary	
A1	Height >1.5m average along length.	Y	
A2	Width >1.5m average along length.	Y	
B1	Gap at hedge base between ground and base of canopy <0.5m for >90% of length.	N	Some larger gaps.
B2	Gap in hedge canopy make up <10% of total length; and no canopy gaps >5m.	Y	Would've before a section removed to facilitate works.
C1	>1m width of undisturbed ground with perennial vegetation for >90% of length. Measured from outer edge of hedgerow; and is present on at least one side.	N	Constrained on both sides by walls and fences.
C2	Plant species indicative of nutrient enriched soils dominate <20% cover of the area of undisturbed ground.	N	Lots of Common Nettle (>30%) present.
D1	>90% of the hedgerow and undisturbed ground is free from INNS and recently introduced species.	Y	No INNS recorded.
D2	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	N	Evidence of heavy pruning which may be detrimental to tree health.
E1	There is more than one age-class of tree present, and there is on average at least one mature, ancient or veteran tree present per 20-50m of hedgerow.	N	Only mature trees present, no saplings visible.
E2	At least 95% of hedgerow trees are in a health condition (excluding veterans). There is little or no evidence of an adverse impact on tree health by damage from livestock, wild animals, pests or diseases, or human activity.	N	Evidence of heavy pruning which may be detrimental to tree health.
Number of criteria passed		4	
Score achieved		Poor	

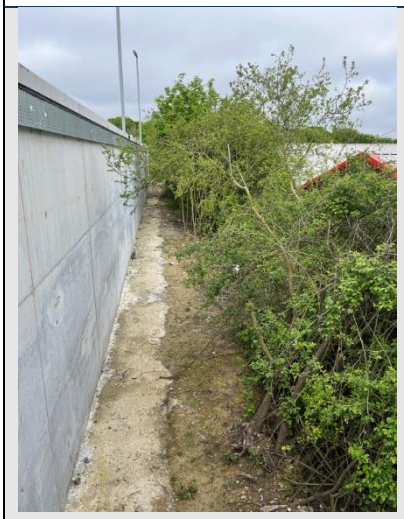
Table 5-3: Woodland condition sheet

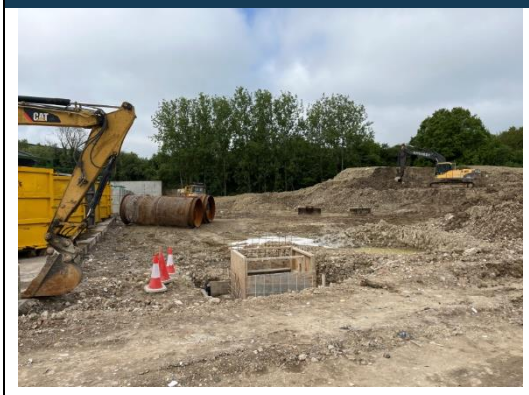
Condition Assessment Criteria		Score (1 - poor, 2 - moderate, 3 - good).	Notes (such as justification)
		Woodland to west of site	
A	Age distribution of trees	2	2-stage canopy visible, presumed.
B	Wild, domestic and feral herbivore damage	3	None visible.
C	Invasive plant species	2	Potentially some Cherry Laurel visible.
D	Number of native tree species	2	Three visible from a distance.
E	Cover of native tree and shrub species	2	Presumed, potential presence of some Cherry Laurel.
F	Open space within woodland	1	Closed canopy on aerial imagery.
G	Woodland regeneration	2	Presumed due to 2-stage canopy.
H	Tree health	2	Look healthy from a distance.
I	Vegetation and ground flora	2	Presumed, ground flora visible but not identifiable.
J	Woodland vertical structure	2	Two storeys visible from edge.
K	Veteran trees	1	None visible.
L	Amount of deadwood	2	Presumed.
M	Woodland disturbance	2	Presumed, some disturbance at edges.
Score (out of a possible 39)		25	
Score achieved		Poor	

C Appendix: Site Photos







D Appendix: Site Plan

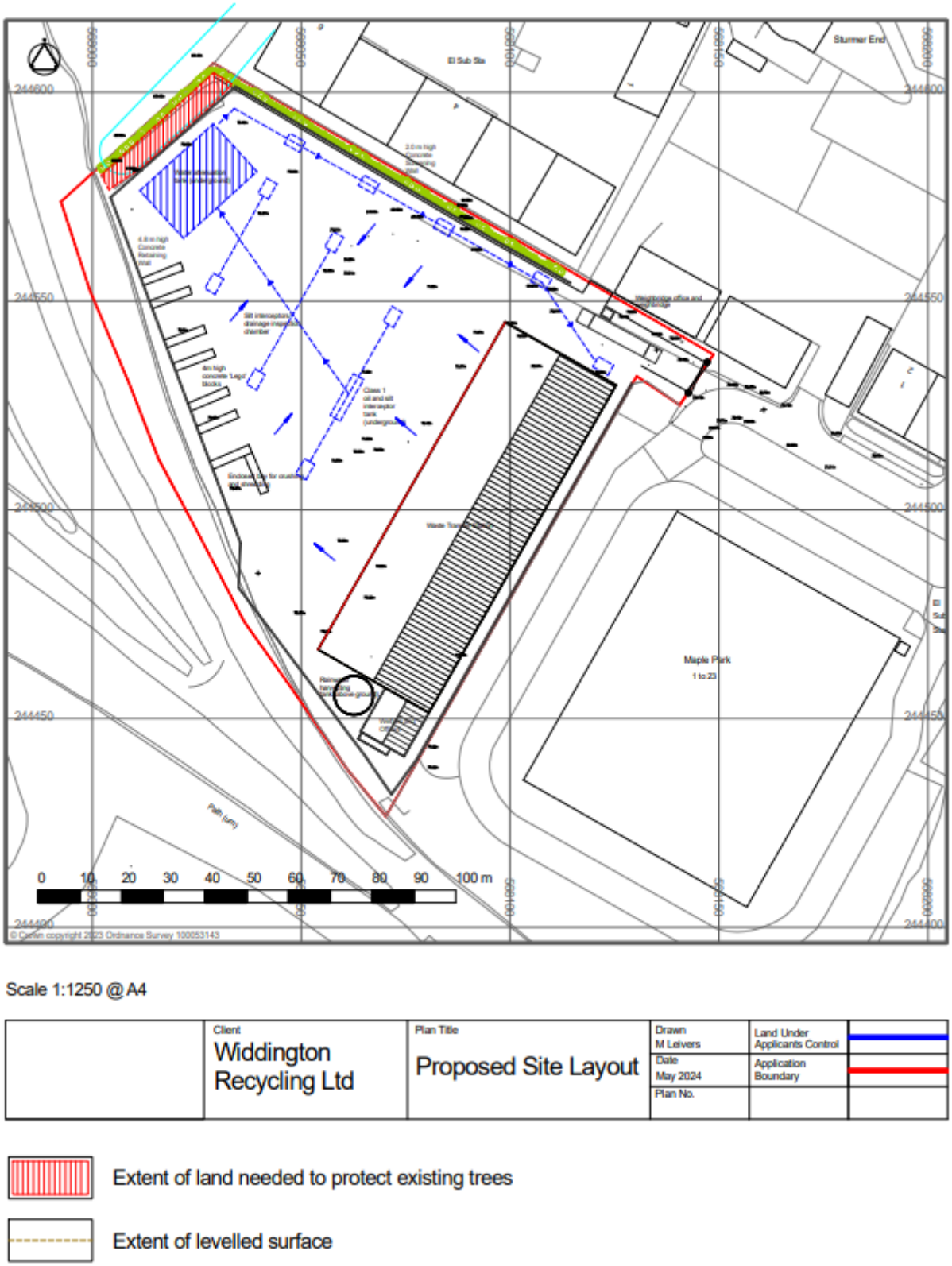


Figure 5-3: Proposed Site Plan

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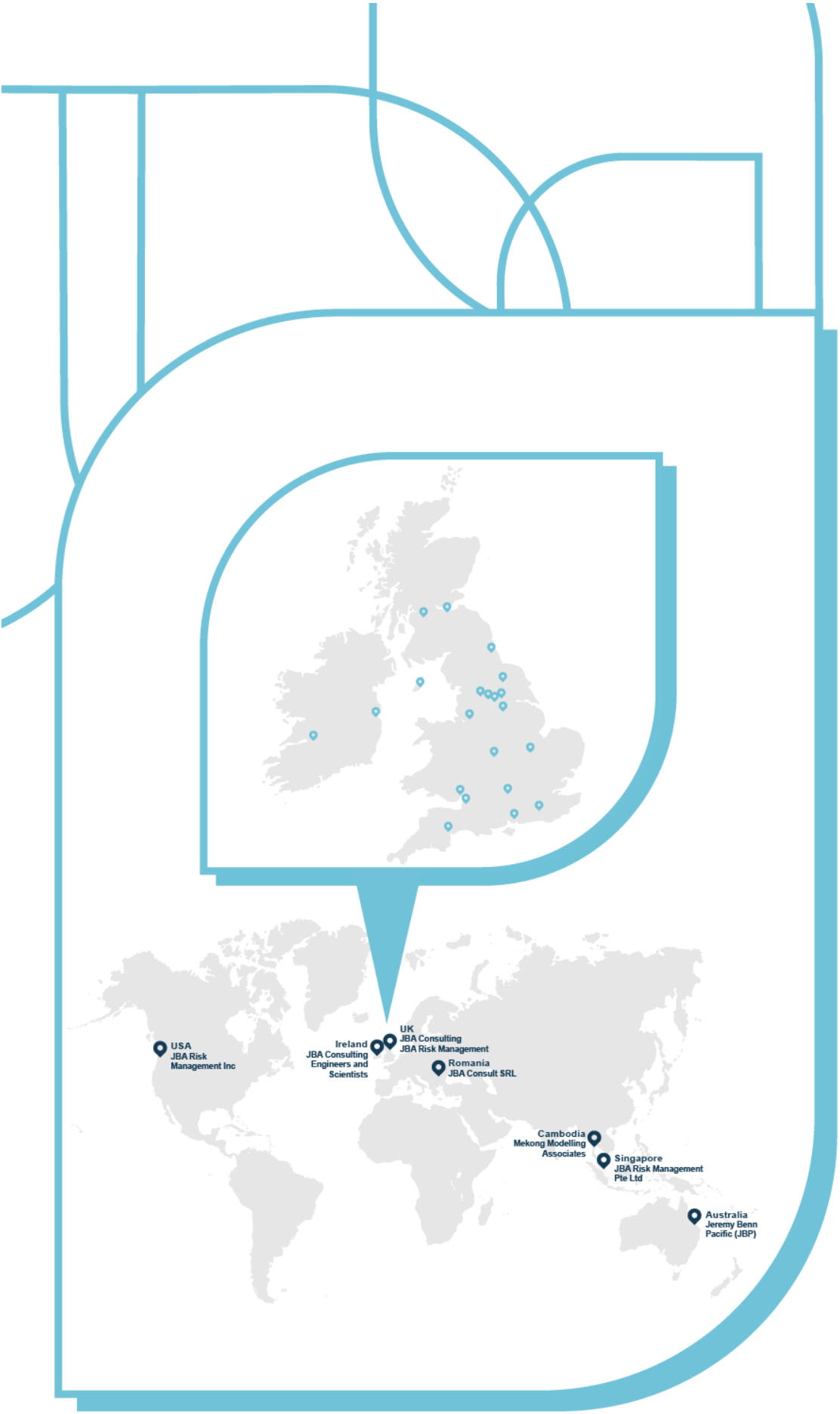

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BD23 3FD
United Kingdom

+44(0)1756 799919
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