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Rother District Council

Biodiversity Audit

Land to the east of Maltings, Peasmarsh

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1.1. Introduction

In March 2023, MKA Ecology Ltd was commissioned by Rother District Council to undertake Biodiversity Audits of 23 sites owned and managed by the district council. The aims of the biodiversity audits were to provide baseline information on the type and quality or condition of these areas with a view to identifying measurable opportunities for positive biodiversity interventions using the Biodiversity Metric. This report refers specifically to Land to the east of Maltings, Peasmarsh (referred to in this report as the site or Land to the east of Maltings).

1.2. Methodology

The audits were performed using standard methodologies; habitats were defined according to the UK Habitat Classification and habitat conditions were assessed against the 'Biodiversity Net Gain' metric schema (Natural England, 2023). By assigning values to habitats by their 'distinctiveness' or rarity, and their condition, the overall measurable biodiversity contained within the surveyed sites was calculated using the Defra Biodiversity Metric (v4.0). In principle, larger/longer, more valuable and better condition habitats score more highly. A detailed methodology is provided at the end of this document.

1.3. Site status

The site is located within the High Weald National Landscape (formerly known as Area of Outstanding Natural Beauty (AONB) and High Weald National Character Area (NCA).

Land to the east of Maltings is not currently covered by any international, national or local nature conservation designations. The woodland on site is identified as a Priority Habitat (deciduous woodland) in Natural England's inventory (Natural England, 2023c).

The site is located in proximity to Rother, Brede and Tillingham Woods Biodiversity Opportunity Area (BOA; Sussex Biodiversity Partnership, 2024). Target habitat types for this BOA for creation, restoration and management are woodland, meadows and wetlands.

1.4. Site description

The land to east of Maltings, is located in the east of the village of Peasmarsh (central grid reference TQ 89151 22722). The site comprises an intensively managed grassland field used for recreational activities, as well as a playground area and bowling green. There is a small pocket of lowland mixed deciduous woodland in the north-west, adjacent to a much larger parcel of ancient woodland (Malthouse

Wood) outside the site boundary. Areas of developed land exist in the east of the site with shed structures built onto concrete, as well as one building in the west for community use.

The site is surrounded by Peasmarsh village to the west and south, with what appears to be a commercial orchard to the east. To the north is Malthouse Wood, which is identified as ancient woodland (Natural England, 2023d); this connects with other parcels of ancient woodland in the wider landscape. Woodland forms a significant part of the local landscape, along with arable fields and small villages.

The table below shows the habitats which are present at Land to the east of Maltings. Detailed descriptions of each habitat type are given in Section 1.16.

Habitat type	Description
Lowland mixed deciduous woodland	Includes both semi-natural and ancient woodland growing on a range of soil types, comprising native deciduous tree and shrub species. Deciduous species occupy >80% of tree cover.
Modified (amenity) grassland	Frequently managed grasslands found in recreational areas. Species composition is not diverse and the habitat is dominated by vigorous grasses that can withstand trampling and mowing such as perennial rye-grass <i>Lolium perenne</i> .
Line of trees	Native and non-native trees planted in distinct lines.
Building	Built structure.
Developed surface	Areas of road, carpark and paths.

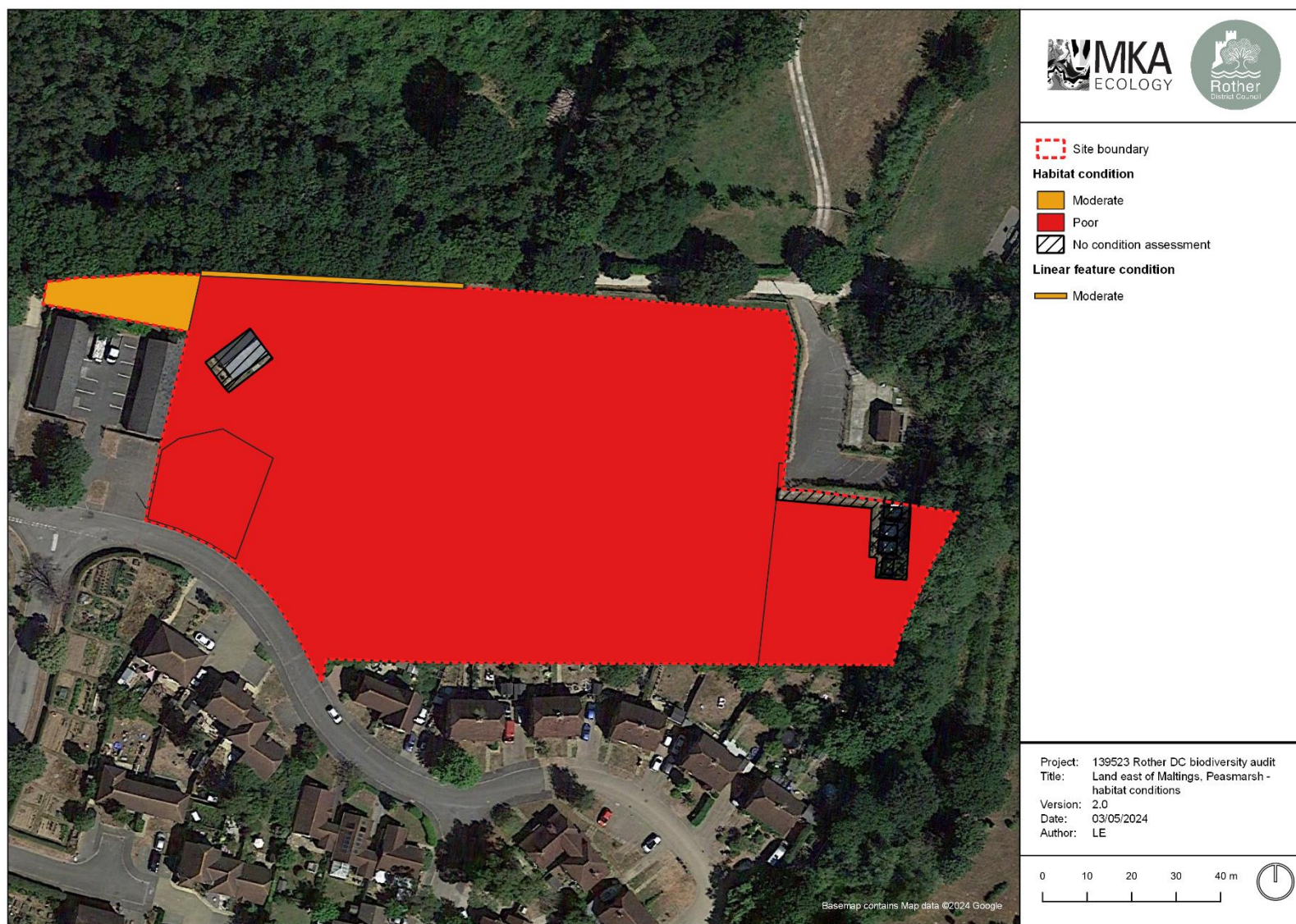
1.5. Maps

The maps presented below show the existing habitats at Land to the east of Maltings, and their conditions. Quadrats (1m²) were used to determine the average number of species per square metre in the grassland, which informs the condition assessments for Biodiversity Net Gain.

Figure 1: UK Habitats Classifications map



Figure 2: Condition assessments



1.6. Photographs

Photograph 1: Modified grassland



Photograph 2: Modified grassland (amenity)



Photograph 3: Buildings (sheds)



Photograph 4: Buildings (background)



Photograph 5: Other lowland mixed deciduous woodland



Photograph 6: Other lowland mixed deciduous woodland



Photograph 7: Ecologically valuable line of trees (background)



1.7. Priority habitats

The following Priority Habitats are present at this location:

- Lowland mixed deciduous woodland.

Habitats of Principal Importance are recognised as the most important habitats in the UK and are listed within the Natural Environment and Rural Communities Act (2006).

The woodland is not formally identified as ancient woodland (Natural England, 2023d). However, the ground flora contains ancient woodland indicators for south-east England (see Section 1.15), and is very similar in composition to adjacent Malthouse Wood to the north, which is identified as ancient woodland. It can therefore be assumed that this parcel of woodland is likely ancient in origin.

1.8. Biodiversity units

The biodiversity units at Land east of Maltings, based on broad habitat types, are shown in the table below.

Habitat type	Total biodiversity units
Modified grassland	2.36
Lowland mixed deciduous woodland	0.44
Developed land; sealed surface	0.00
Total habitat units	2.81
Linear features type	Total biodiversity units
Line of trees (ecologically valuable)	0.51
Total linear units	0.51

1.9. Invasive non-native species

Cherry laurel was recorded within the woodland. Cherry laurel is not listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), but can outcompete native woodland and scrub vegetation.

No invasive non-native species were recorded in other habitats at Land east of Maltings.

1.10. Constraints

Below are detailed some constraints relating to protected and notable species, which should be considered as part of habitat enhancement or creation programmes. It should be noted that most risks associated with protected species constraints can be easily avoided with appropriate planning.

- Presence of nesting birds within the woodland and trees.
- Potential use of the habitats onsite by foraging and commuting bats.
- Potential use of trees onsite by roosting bats.
- Potential presence of hedgehogs *Erinaceus europaeus*.
- Potential presence of badger *Meles meles* setts (no setts recorded during the site visit).
- Potential presence of hazel dormouse *Muscardinus avellanarius* in woodland habitats.

1.11.Opportunities

The following sections detail the potential opportunities for creating new habitats or enhancing existing habitats at Land to the east of Maltings, and also measures to provide further opportunities for priority species. Given the habitats within and surrounding the site, and its location within the Rother, Brede and Tillingham Woods BOA, it is suggested that focus is given to creating/restoring woodland and linear habitats (hedgerows and lines of trees) to improve connectivity between these habitats in the local landscape.

Opportunities - Habitats

Habitat type	Opportunities
Lowland mixed deciduous woodland	<p>This habitat type is allocated high distinctiveness in the Metric. The woodland is currently in moderate condition. There is evidence from the plant species recorded to suggest it is ancient in origin, but its condition is currently limited by the damaging effects of a mountain bike obstacle course, which has been established within the site and in the adjacent Malthouse Wood.</p> <p>Given the small size of the woodland within the site boundary, opportunities for significant gains are limited. However, the following remedial actions and enhancements are recommended:</p> <ul style="list-style-type: none"> • Exclude mountain biking from the woodland (this may be challenging to enforce in practice); • Remove cherry laurel; • Contact the owner of Malthouse Wood to explore the feasibility of establishing a woodland management plan for the whole woodland; • To reinforce and buffer the existing woodland, convert surrounding areas of modified grassland into

Habitat type	Opportunities
	woodland. These could be created using the Miyawaki Method (CTF, 2024).
Modified grassland	<p>This habitat is allocated low distinctiveness in the Biodiversity Metric and is currently of limited value for biodiversity, due to lack of botanical and structural variation. The interventions that would contribute most significantly to enhancing this habitat are:</p> <ul style="list-style-type: none"> • Mow the grass less regularly to encourage a more diverse sward structure and range of flowering plants in the sward. The aim would be to achieve a 'bee lawn', approximately 5-10cm in height; which could still be used for amenity purposes, but support more flowering plants. Some supplementary management over-seeding may be required to increase the number of flowering species. • Around the perimeters of the site, leave a buffer strip of grassland (at least 2-3m width recommended) which is mown even less regularly (once or twice a year). This would provide a buffer to the adjacent woodland in the north and any hedgerow and tree planting within the site (see below). <p>As well as enhancing the existing grassland, new habitats of higher distinctiveness could be created in place of the grassland, including woodland (see above).</p>
Amenity grassland	<p>No changes to management suggested here, given current use as a playground and as a bowling green. Some planters with nectar-rich perennial planting could be installed on hardstanding around the bowling green to provide a resource for pollinators.</p>
Lines of trees and hedgerows	<p>The line of trees at the site is in moderate condition, and limited in reaching good condition only by the presence of Malthouse Lane. Suggested enhancements are:</p> <ul style="list-style-type: none"> • Increase the length/extent of this habitat along the whole north boundary through planting native tree species. Install bird and bat boxes on mature trees to supplement existing veteran features. • Explore the scope for planting the rest of the site boundary with trees and/or native hedgerows, to help improve connectivity across the local landscape.

Opportunities - Species

Species	Opportunities
Invertebrates (saproxylic)	<i>Standing deadwood piles:</i> The creation of 'stumperies' with large volume wood (as generated by management works) dug into the soil (eg: PTES, 2016). <i>Artificial rot-holes:</i> Cavities cut into stumps to mimic rot holes. These often fill with water and provide habitat for the larvae of a range of specialist invertebrates.
Invertebrates (pollinators)	Increasing the proportion of wildflowers within the grassland and installing planters in the bowling green will create additional foraging habitat for pollinators.
Invertebrates (generalist)	'Bug hotels,' 'bee banks' and log piles could be installed around the Site, particularly adjacent to the woodland.
Birds	Installation of generalist bird boxes where possible, for instance on the mature trees. Bird boxes with varying entrance hole sizes should be used to provide for a range of species.
Reptiles and amphibians	These species groups could be supported through creation of bespoke refugia and hibernacula, providing additional areas for basking and foraging.
Bats	Installation of bat boxes on mature trees where possible. Investigate feasibility of creating a bat attic in the main building.
Hedgehog	Hedgehog hibernation boxes may be installed at the bases of the hedgerows, ideally positioned near to species-rich grassland.

1.12. Key targets for the short and long term

Short-term targets

Some key targets for upcoming 5 to 10 years:

- Trial less intensive mowing regime for grassland around perimeters of site, and central recreational area;
- Investigate feasibility of excluding mountain biking from ancient woodland parcel;
- Remove cherry laurel from woodland;
- Contact owner of Malthouse Wood to explore developing a woodland management plan in partnership;
- New tree, hedgerow and woodland planting, together with a management plan; and
- Install bat and bird boxes. Investigate feasibility of installing bat attic in main building.

Long-term targets

- Implement woodland management plan;
- Ongoing management of any hedgerows planted; and
- Review success of revised grassland mowing regime. If feasible, introduce targets to increase botanical diversity.

1.13. Further monitoring work/other activities

Specific surveys for protected and priority species could be undertaken for bats and invertebrates, to understand how these species groups use the site. There are survey methods for all these species which can be undertaken by volunteers; groups could be supported by a licensed ecologist or local specialist if needed.

These targeted surveys could be supplemented by regular Bioblitz surveys at the site, carried out by volunteer groups, to monitor general species diversity.

1.14. Future risks to condition

- Potentially increased levels of recreational pressure;
- Changes in management and land use;
- Tree disease;
- Impacts of climate change on the habitats present, such as increased drought, fire and flood risk; and
- Introduction and spread of invasive, non-native species.

1.15. Habitat descriptions and conditions

Grassland
<p><i>UKHabs habitat types present (secondary codes in brackets)</i></p> <p>g4 – Modified grassland</p> <p>g4a – Amenity grassland</p>
<p><i>Description</i></p> <p>g4 – Modified grassland</p> <p>This is the main habitat at the site, and forms the recreational playing field. At the time of the survey visit, the grass had been mown, with limited regrowth of grasses and flowering plants in the sward. Plant species identification was constrained by the mown sward; however, it was possible to gain an understanding of species composition sufficient to inform this assessment.</p> <p>The site is situated on slightly acid soils, formed of loam and clay with some impeded drainage (LandIS, 2024). However, the majority of the grassland appears to be dominated by perennial ryegrass <i>Lolium perenne</i>, Yorkshire fog <i>Holcus lanatus</i> and bent grass <i>Agrostis sp.</i>, indicating historical management as a recreational space, including over-seeding, regular mowing and nutrient inputs. Creeping buttercup <i>Ranunculus repens</i> and clover <i>Trifolium sp.</i> were the main forb species recorded within the sward.</p> <p>Along the edges of the field, which had not been mown, a greater diversity of forbs were recorded, including small-flowered crane's-bill <i>Geranium pusillum</i>, meadow vetchling <i>Lathyrus pratensis</i>, selfheal <i>Prunella vulgaris</i> and creeping cinquefoil <i>Potentilla reptans</i>.</p> <p>g4a – Amenity grassland</p> <p>A section of the main field is designated as a playground, with modified grassland as per the above description interspersed with children's play equipment.</p> <p>The eastern end of the grassland is fenced off as a bowling green. This area was not accessible for detailed assessment of the species composition; given its intensive management as a green, it is assumed species composition is similar and less diverse than that of the adjacent modified grassland.</p>
<p><i>Condition</i></p> <p>g4 – Modified grassland</p> <p>Poor condition on the basis of low species diversity (fewer than 6 species per 1m²), and uniform sward height.</p> <p>g4a – Amenity grassland</p> <p>Poor condition on the basis of low species diversity (fewer than 6 species per 1m²), and uniform sward height.</p>

Woodland

UKHabs habitat types present (secondary codes in brackets)

w1f7 – Other lowland mixed deciduous woodland

Description

w1f7 – Other lowland mixed deciduous woodland

A very small belt of woodland extends out on a bank in the far west of the site; it is separated from the adjacent and much larger Malthouse Wood to the north only by Malthouse Lane, which is a single track road. Canopy cover is continuous between Malthouse Wood and the woodland onsite.

The woodland comprises predominantly mature hornbeam *Carpinus betulus* trees, with some pedunculate oak *Quercus robur*, ash *Fraxinus excelsior* and holly *Ilex aquifolium*. Cherry laurel *Prunus laurocerasus* is also present. An understorey layer is absent. Ground flora includes wood melick *Melica uniflora*, bluebell *Hyacinthoides non-scripta*, male fern *Dryopteris filix-mas* and broad buckler-fern *Dryopteris dilatata*, but is very patchy, due to extensive ground disturbance and damage apparently caused by use of the site and adjacent Malthouse Wood for mountain biking (see condition assessment below).

Although not formally identified as ancient woodland (Natural England, 2023d), the ground flora contains ancient woodland indicators for south-east England, and is very similar in botanical composition and physical structure to adjacent Malthouse Wood, which is identified as ancient woodland. It can therefore be assumed that this parcel of woodland is likely ancient in origin.

Condition

w1f7 – Other lowland mixed deciduous woodland

Moderate condition. This habitat scores 28, which is towards the lower end of the band for this condition (>26-32). It scores highly on criteria for presence of native tree and shrub species (which is notable given its small size), the presence of ancient woodland indicators in the ground flora; veteran trees; and presence of significantly sized deadwood. Current use of the site as part of a mountain bike obstacle course means it scores poorly on criteria relating to woodland disturbance and vertical structure and regeneration.

Linear features

UKHabs habitat types present (secondary codes in brackets)

w1g6ii – Line of trees (ecologically valuable)

Description

w1g6ii – Line of trees (ecologically valuable)

A treeline extends out of the woodland and partly along the fenceline on the northern boundary of the site. It comprises predominantly mature pedunculate oaks, with trunks covered in ivy *Hedera helix*.

Linear features

Condition

w1g6ii – Line of trees (ecologically valuable)

Moderate condition. All trees are native species, healthy, and of sufficient maturity to support veteran or other ecological niches for wildlife. There are no gaps in canopy cover. This feature is limited in reaching good condition by the presence of the road (Malthouse Lane) within 6m on its northern side.

Urban

UKHabs habitat types present (secondary codes in brackets)

u1b5 – Developed land; buildings

u1b – Developed land; sealed surface

Description

u1b5 – Developed land; buildings

There is a series of sheds on the east side of the bowling green, and a brick-built building situated in the north-west corner of the main playing field.

u1b – Developed land; sealed surface

There is a hardstanding path along the north boundary of the bowling green and surrounding the outbuildings there.

Condition

u1b5 – Developed land; buildings: N/A - Other

u1b – Developed land; sealed surface: N/A - Other

1.16. References

Butcher, B., Carey, P., Edmonds, R., Norton, L., & Treweek, J (2020) *The UK Habitat Classification User Manual Version 1.1* <http://www.ukhab.org/>.

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Natural England (2023a) *Biodiversity Metric 4.0 Calculation Tool*. Natural England: York.

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Natural England (2023c) Priority Habitats Inventory (England) Available at: <https://www.data.gov.uk/dataset/4b6ddab7-6c0f-4407-946e-d6499f19fcde/priority-habitats-inventory-england>. Downloaded 30/10/2023.

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PTES (2016) *Build a log pile for stag beetles*. People's Trust for Endangered Species (PTES). Available at <https://ptes.org/wp-content/uploads/2016/11/Build-a-log-pile-for-stag-beetles.pdf>

Sussex Biodiversity Partnership (2024). *Biodiversity Opportunity Areas*. <https://sussexlnp.org.uk/boa/>. Accessed 19/01/2024.

SxBRC (2023) *Sussex Biodiversity Records Centre: data search of protected and priority sites and species in Rother District*. Received 05/06/2023.

1.17. Surveyors

The survey was undertaken by Lydia Ennis ACIEEM. Lydia has six years' experience undertaking habitat surveys and delivering management advice to landowners. The report was written by Lydia and Joe Gillis, Graduate Ecologist at MKA Ecology Ltd. Joe is his first year as an ecologist. The report has been reviewed by Will O'Connor CEcol MCIEEM. Will has over 15 years' experience working as an ecological consultant.

Detailed methodology

UK Habitat Classification

The habitat surveys followed the methodology of the UK Habitat Classification (professional) version 2.0 (hereafter UKHab; UK Habitat Classification Working Group, 2023). UKHab works at two levels: a hierarchical primary habitat classification and a list of secondary codes. The primary classification builds on existing habitat and botanical classifications (e.g., Phase 1, NVC). Habitats are described through an increasingly detailed hierarchy until a match is found. The secondary codes provide a list of environmental qualifiers that capture details for a range of other factors (e.g., hydrological regime, management etc). A given primary habitat area may have many secondary codes attached.

Some modifications to the UKHab were made as follows:

- Native hedgerows were categorised according to the more detailed Biodiversity Metric habitat label (see below). A level 5 hierarchy was created under the existing level 4 code 'h2a - Priority hedgerows' to reflect the differing features that hedgerows might contain in combination:
 - Association with a bank or ditch.
 - Species richness.
 - With/without trees.

Incidental plant species lists were gathered for each habitat and distributions of species estimated (using the DAFOR scale; **D**ominant, **A**bundant, **F**requent, **O**ccasional and **R**are). Full botanical inventories were not feasible within the scope of this work. Botanical lists are provided as a separate appendix to this Biodiversity Audit.

Biodiversity Metric

The Defra Biodiversity Metric 4.0 (Natural England, 2023) has been used for this Biodiversity Audit, with certain modifications as detailed in the Appendix. This method uses habitat as a proxy for biodiversity, whereby habitats are assigned the following 'multiplier' scores:

- **Distinctiveness:** A measure of the type and importance of a habitat. Habitats that are rare and/or support a wide range of species are more distinctive.
- **Condition:** A measure of the condition of a given habitat type. The condition is assessed according to a suite of criteria described within the methodology below. It should be stressed that condition in biodiversity terms is not to be confused with traditional perceptions of condition

or maintenance. A grassland that might be perceived to be well maintained (e.g. regularly mown) is very likely to be in poor condition. Distinctiveness and condition are also not wholly independent. Some of the factors that lead to poor condition grasslands (intensive mowing or grazing) can also lead to a definition as a lower distinctiveness grassland.

- Strategic significance: Any site that possesses a designation is considered High, those deemed ecologically valuable but without designation are considered Medium, and those with limited ecological value and no designation are classed as Low.

These factors are then multiplied to the area (for habitat parcels) or length (hedgerows, lines of trees) to produce an overall 'biodiversity unit.' Large parcels of habitat or long linear features will score better.

The total number of units is presented for the surveyed areas, each site and by habitat type. Indications of how many units are currently contained within habitats of different conditions are also presented; this will help to indicate the opportunities that might be made to increase measurable biodiversity by improving the condition of existing habitats.

Condition assessments

Each habitat type was assessed for condition using the methodology outlined in the Defra Biodiversity Metric 4.0 (Natural England, 2023). Habitat condition is defined as either good, moderate or poor by assessment against a suite of condition criteria. A habitat in good condition will meet more of the criteria for good condition and fewer of the criteria for poor condition. A habitat in poor condition will meet fewer of the criteria for good condition and more of the criteria for poor condition. For the purposes of this assessment the interim categories of 'fairly good' and 'fairly poor' were not used because they are not clearly defined within the methodology and may present inconsistencies with future audit assessments. The habitat condition sheets were modified for use in the field and are supplied as supplementary data.

Habitats were therefore divided into parcels based upon their condition and minimum mappable unit of habitat area.



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