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Rother
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Rother District Council

Biodiversity Audit

Land at Park View, Brightling

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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 at Park View, Brightling.

1.2. Methodology

The audits were performed using standard methodologies; habitats were defined according to the UK Habitat Classification and habitat conditions were assessed assist 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 at Park View is not currently covered by any international, national or local nature conservation designations. It is located 0.3km south of Rounden and Great Wood Local Wildlife Site (LWS), an ancient woodland with over 130 species recorded. No Priority Habitats or Ancient Woodland listed on Natural England Inventories (Natural England, 2023c,d) are present onsite. It is located within 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

Land at Park View is located on the northern edge of Brightling village (grid reference: TQ 68534 21039). It consists of a small grassland field surrounded by hedgerows, with a belt of woodland on the east boundary. It is approximately 0.3ha in size. No information on current or past management of the site was available, and at the time of the survey visit the site did not appear to be in active management.

The site is surrounded to the south, east and west by residential buildings and gardens of Brightling village. To the north, and more generally in the wider landscape surrounding Brightling, is a mosaic of pasture grassland fields and large woodland parcels. The majority of these woodlands are listed on both the Priority Habitats Inventory and the Ancient Woodland Inventory (Natural England, 2023c,d). The closest of these woodlands is Rounden and Great Wood LWS, which is located 50m to the north of the site, and connected by hedgerows.

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

Habitat type	Description
Arrhenatherum neutral grassland	A widespread grassland type, distinguished by an absence of strong calcareous or acidic indicator species, and low occurrence of palatable grasses typical of modified grassland. A sub-type of this habitat is characterised by dominance of false oat-grass *Arrhenatherum elatius*.
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.
Buildings	Built structure.
Native hedgerow with trees	Hedgerows comprised of predominantly native species, including larger tree species.
Native species-rich hedgerow	Hedgerows comprising at least five native woody species.
Other hedgerow (non-native/ornamental)	Hedgerows comprising predominantly non-native species.

1.5. Maps

The maps presented below show the existing habitats at Land at Park View, and their conditions. Quadrats ($1m^2$) 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 Classification map

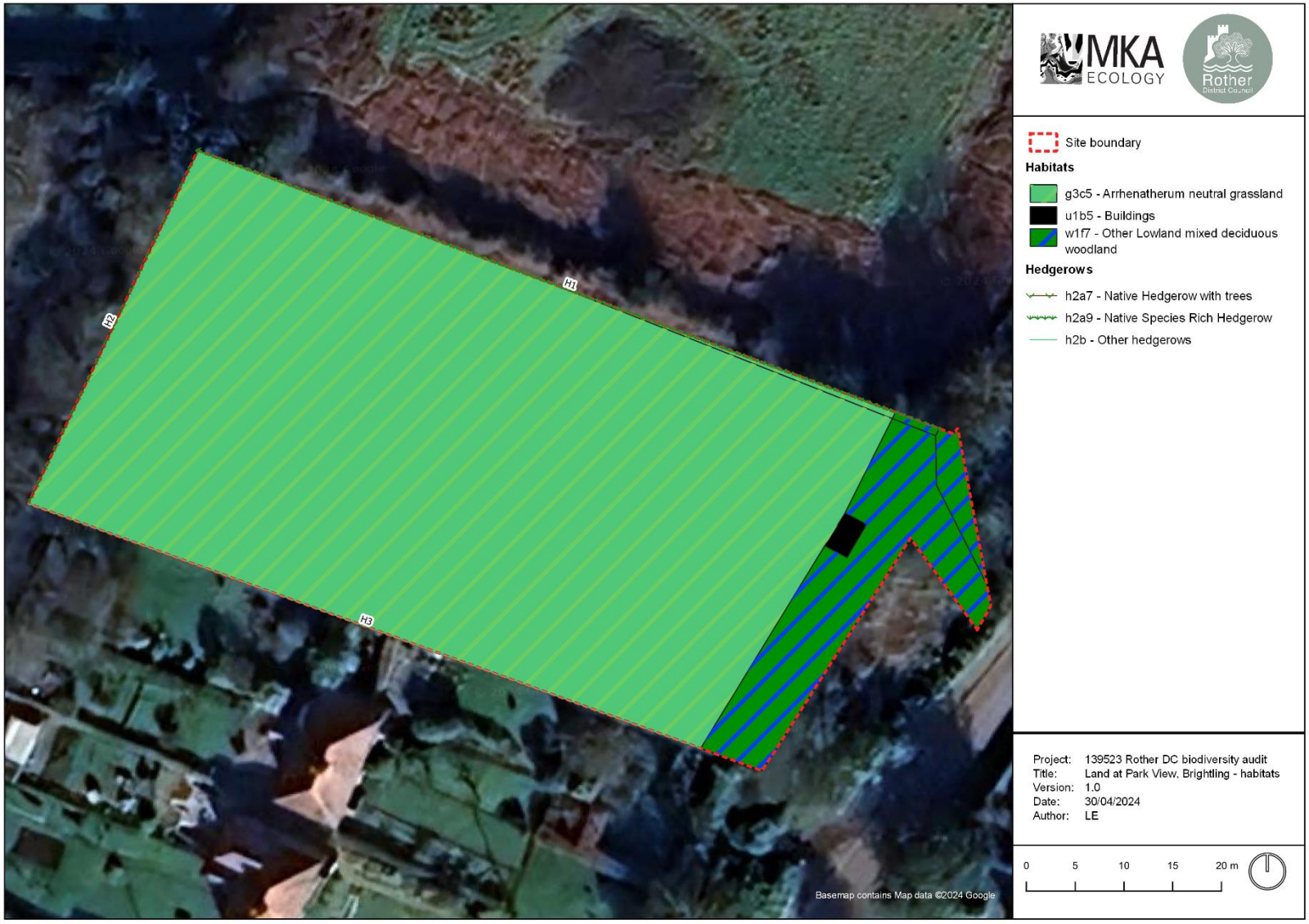

Figure 2: Condition assessments map

1.6. Photographs

Photograph 1: Arrhenatherum neutral grassland

Photograph 2: Lowland mixed deciduous woodland

Photograph 3: Building

Photograph 4: Native species-rich hedgerow - H1

Photograph 5: Native hedgerow with trees - H2

Photograph 6: Non-native/ornamental hedgerow - H3

1.7. Priority habitats

The following Priority Habitats are present at this location;

- Lowland mixed deciduous woodland;
- Native hedgerows.

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).

1.8. Biodiversity units

The biodiversity units at Land at Park View, based on broad habitat types, are shown in the table below.

Habitat type	Total biodiversity units
Arrhenatherum neutral grassland	1.37
Lowland mixed deciduous woodland	0.23
Buildings	0.00
Total habitat units	**1.60**
Linear features type	**Total biodiversity units**
Native hedgerow with trees	1.12
Native species-rich hedgerow	0.55
Other hedgerow	0.07
Total hedgerow units	**1.74**

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 the grassland or hedgerows.

1.10. Constraints

Constraints relating to protected and notable species, which should be considered as part of habitat enhancement or creation programmes, are listed below. 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 hedgerows, woodland and grassland.
- Presence of reptiles in grassland and woodland habitats.

- Potential presence of amphibians (such as great crested newt *Triturus cristatus*) in thick vegetation during their terrestrial phase, due to the presence of ponds ditches in the local landscape..
- Potential use of the habitats onsite by foraging and commuting bats.
- Potential use of trees 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 and hedgerow habitats.

1.11. Opportunities

The following sections detail the potential opportunities for creating new habitats or enhancing existing habitats at Land at Park View, and also measures to provide further opportunities for priority species.

Opportunities - Habitats

Habitat type	Opportunities
Arrhenatherum neutral grassland	Bringing this field back into active management – ideally with a combination of hay cuts and grazing – would restore much of its condition. Cattle grazing in the first instance would be ideal; this will help to break up the dense sward and thatch that has developed, reduce grass cover, and create areas of open ground for forbs to colonise. Some experimental plots with yellow rattle *Rhinanthus minor* (a forb parasitic on grasses) sown would help to reduce grass dominance further. The current forb community is diverse, just at very low levels; this, together with the good connectivity between the site and the wider landscape, means that species diversity within the grassland could likely be restored without over-seeding.
Lowland mixed deciduous woodland	The small size of this parcel means that its function as a woodland is limited in some respects. However, it does have great value as a connecting feature with adjacent woodland to the east, and hedgerows onsite, which in turn link to hedgerows and woodland in the wider landscape. Measures to enhance the condition of this habitat, and its value as a connecting feature, are: • Remove cherry laurel and encourage growth of native species. The presence of one or two non-native

Habitat type	Opportunities
	conifers is not detrimental (and can provide habitat for bird species such as firecrest and goldcrest) but planting of further non-native species should be avoided. • In areas of woodland left to regenerate (including to the south, where recent tree-felling has taken place) incorporate measures to protect recovering vegetation (such as coppice stools) from over-browsing by deer and rabbits. Active management of bramble may also be required to avoid it becoming too dominant. • Any tree works undertaken should leave arisings in situ to act as a deadwood resource (non-native cherry laurel arisings should be removed and chipped).
Hedgerows	The two native hedgerows (H1 and H2) currently score the maximum within the condition assessment. Whilst the hedgerows are currently in an ideal condition to support wildlife, changes in management (or no management at all) may result in degradation of this condition. H2 is starting to show indications of growing out, and would benefit from re-laying in the short-term. Introduce a hedgerow management plan, including a rotational cycle for phased cutting or laying of all hedgerows. Sections and sides of the hedgerow should be cut in alternate years to ensure a continuous food supply and habitat for birds, hazel dormice and other wildlife. Hedgerow H2 could also be re-classified as a native species-rich hedgerow if more than five woody species per 30m length can be encouraged; either through infill planting or natural regeneration. Ideally, species composition of H3, the non-native hedgerow, would be altered to gradually replace garden privet with native species. This should be done over time, without disrupting connectivity of the hedgerow, which is arguably more important than its species composition.

Opportunities - Species

Species	Opportunities
Invertebrates (saproxylic)	*Standing deadwood piles:* The creation of 'stumperies' with large volume wood (as generated by management works) dug into the soil (eg: PTES, 2016). *Artificial rot-holes:* 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 will create additional foraging habitat for pollinators.
Invertebrates (generalist)	'Bug hotels,' 'bee banks' and log piles could be installed around the Site.
Birds	Installation of generalist bird boxes where possible, for instance in the woodland and trees within the hedgerow. 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 refugia and hibernacula, providing additional areas for refuge and foraging.
Bats	Installation of bat boxes where possible on trees within the woodland and hedgerows.
Hedgehog	Creation of large log and brash piles.

1.12. Key targets for the short and long term

Short-term targets

Some key targets for upcoming 5 to 10 years:

- Remove cherry laurel from the woodland;
- Protect recovering vegetation in the woodland from over-browsing and manage bramble where required;
- Reintroduce grazing to the grassland, in combination with hay cuts;
- Create and implement hedgerow management plan;
- Install bird and bat boxes.

Long-term targets

Some key targets for long term planning;

- Yellow rattle experimental plots within the grassland

- Replacement of non-native species in hedgerow H3 with native shrub species.

1.13.Further monitoring work/other activities

Specific surveys for protected and priority species could be undertaken for bats, hazel dormouse, birds, invertebrates and reptiles, to understand if and 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.

Soil sampling is recommended to inform management activities to enhance the grassland.

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
UKHabs habitat types present (secondary codes in brackets) **g3c5 – Arrhenatherum neutral grassland**
Description **g3c5 – Arrhenatherum neutral grassland** The majority of the site is a grassland field. Underlying soils are slightly acidic, and some species were present in the sward that can indicate an acidic grassland community: sweet vernal grass *Anthoxanum odoratum*, creeping soft-grass *Holcus mollis* and lesser stitchwort *Stellaria graminea*. However, these were only recorded occasionally, and false oat-grass *Arrhenatherum elatius* is dominant throughout. The overall species composition is therefore more suggestive of a neutral grassland community not subject to recent regular management. Sward height was 50-100cm across the field at the time of the survey visit, with the false oat-grass and other grasses (cock's-foot *Dactylis glomerata*, Yorkshire fog *Holcus lanata*, *Phleum sp.* and bent *Agrostis sp.*) forming a dense thatch at ground level. Yarrow *Achillea millefolium* and common sorrel *Rumex acetosa* were the most common forbs recorded, with common vetch *Vicia sativa* and meadow vetchling *Lathyrus pratensis* also present, but rare. Patches of common nettle *Urtica dioica* suggest localised nutrient enrichment, perhaps evidence of past grazing in the field.
Condition **g3c5 – Arrhenatherum neutral grassland** **Poor condition.** This habitat fails all but one condition criteria. There is no variation in sward height; dense thatch at ground layer means there is very little bare ground; although cover of bracken is below threshold levels, cover of bramble *Rubus fruticosus agg.* is above; cover of undesirable species (mostly common nettle, also curled dock *Rumex crispus*) is above threshold levels; and there is low species diversity (average seven species per 1m^2 quadrat).

Woodland
UKHabs habitat types present (secondary codes in brackets) **w1f7: Other lowland mixed deciduous woodland**
Description **w1f7: Other lowland mixed deciduous woodland** A small strip of woodland marks the east boundary of the site, and joins directly to woodland on a steep slope lining the Brightling Road. Canopy species include ash *Fraxinus excelsior*, sycamore *Acer pseudoplatanus* and Leyland cypress *Cupressus x leylandii*; understorey species comprise

Woodland
hazel *Coryllus avellana,* holly *Ilex aquifolium* and cherry laurel *Prunus laurocerasus*. Ivy *Hedera helix* is abundant on tree trunks and in the field layer; however, there were a small number of bluebells *Hyacinthoides non-scripta* growing, as well as broad buckler-fern *Dryopteris dilatata*. Some recent management had taken place towards the southern end, with some mature trees felled.
Condition **w1f7: Other lowland mixed deciduous woodland** **Poor condition.** Condition is limited by the presence of cherry laurel, no identifiable woodland plant community (despite the presence of a small number of bluebells, ivy was dominant throughout), no veteran trees, very little deadwood present, and high amounts of disturbance in proportion to the size of the woodland from the tree-felling to the south.

Hedgerows
UKHabs habitat types present (secondary codes in brackets) **h2a7 – Native hedgerow with trees** **h2a9 – Native species-rich hedgerow** **h2b – Other hedgerows**
Description Three hedgerows line the north, west and south boundaries of the grassland field. **h2a7 – Native hedgerow with trees** **H2:** The hedgerow lining the western boundary contains a number of mature trees, including ash and non-native conifers. It does not appear to be regularly managed, with much of the scrub forming the main hedgerow canopy (e.g. hazel) also beginning to grow out and form small trees. **h2a9 – Native species-rich hedgerow** **H1:** The hedgerow lining the northern boundary is dominated by hawthorn *Crataegus monogyna*, with hazel, holly, dog rose *Rosa canina* and honeysuckle *Lonicera periclymenum*. **h2b – Other hedgerows** **H3:** The hedgerow along the southern boundary is dominated by garden privet *Ligustrum ovalifolium*, along with blackthorn *Prunus spinosa*. All hedgerows are flanked by a strip of bracken *Pteridium aquifolium*.
Condition **h2a7 – Native hedgerow with trees**

Hedgerows
H2 – Good condition. This hedgerow passes all condition criteria, although the canopy is starting to grow out; ongoing lack of management could lead to deterioration in condition of this hedgerow. **h2a9 – Native species-rich hedgerow** **H1 – Good condition.** This hedgerow passes all condition criteria, with no gaps in the canopy or at ground level; no invasive species or evidence of current damage, and no disturbed ground adjacent to the hedgerow. **h2b – Other hedgerows** **H3 –** Automatically allocated **Poor condition**.

Urban
UKHabs habitat types present (secondary codes in brackets) **u1b5 – Developed land; buildings**
Description **u1b5 – Developed land; buildings** There is a dilapidated shed within the woodland, made of corrugated metal sheets.
Condition **u1b5 – Developed land; buildings:** 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/.

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

Natural England (2023b) *The Biodiversity Metric 4.0 – User Guide*. Natural England: York.

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.

Natural England (2023d) Ancient Woodland Inventory (England) Available at: https://naturalengland-defra.opendata.arcgis.com/datasets/ancient-woodland-england/explore. Downloaded 30/10/2023.

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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 also written by Lydia, and 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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