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Rother District Council

Biodiversity Audit

Land at Sands End, Camber

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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 an area of open land at Sands End in Camber.

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 not located within the High Weald National Landscape (formerly known as Area of Outstanding Natural Beauty (AONB)). It is located within the Romney Marsh National Character Area (NCA).

Land at Sands End, Camber is not currently covered by any international, national or local nature conservation designations. The site is located within the Romney Marsh Area Biodiversity Opportunity Area (Sussex Biodiversity Partnership, 2024). Target habitat types for this BOA for creation, restoration and management are wetlands.

1.4. Site description

This site is a parcel of undeveloped small grassland fields, including an orchard, situated within a line of residential properties off Farm Lane in Camber. It is approximately 0.24ha in size, and centred on grid reference TQ 95838 19209. It is surrounded predominantly by residential development, with sheep pasture to the north that is listed on Natural England's Priority Habitat Inventory as good quality semi-improved grassland (Natural England, 2023c). The coast (Camber Sands) lies 0.5km to the south.

The site has historically been used for horse grazing, which ceased approximately four years ago, according to a local resident. The grass is now cut approximately twice a year, but otherwise the site does not appear to be regularly accessed or used by people.

The table below shows the habitats which are present at Sands End, Camber. Detailed descriptions of each habitat type are given in Section 1.16.

Habitat type	Description
Traditional orchard	A habitat structure characterised by dense, regular arrangements of fruit and nut trees. Typically occurs over grassland habitat types of medium, high or very high distinctiveness.
Other 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.
Mixed scrub	Dense scrub containing a mixture of species with no one species dominating.
Building	Built structure.
Native hedgerow with trees	Hedgerows comprised of predominantly native species, including larger tree species.
Rural trees (group)	Individual trees in a rural environment; adjacent trees are placed in groups for the purposes of assessment.

1.5. Maps

The maps presented below show the existing habitats at Land at Sands End, 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

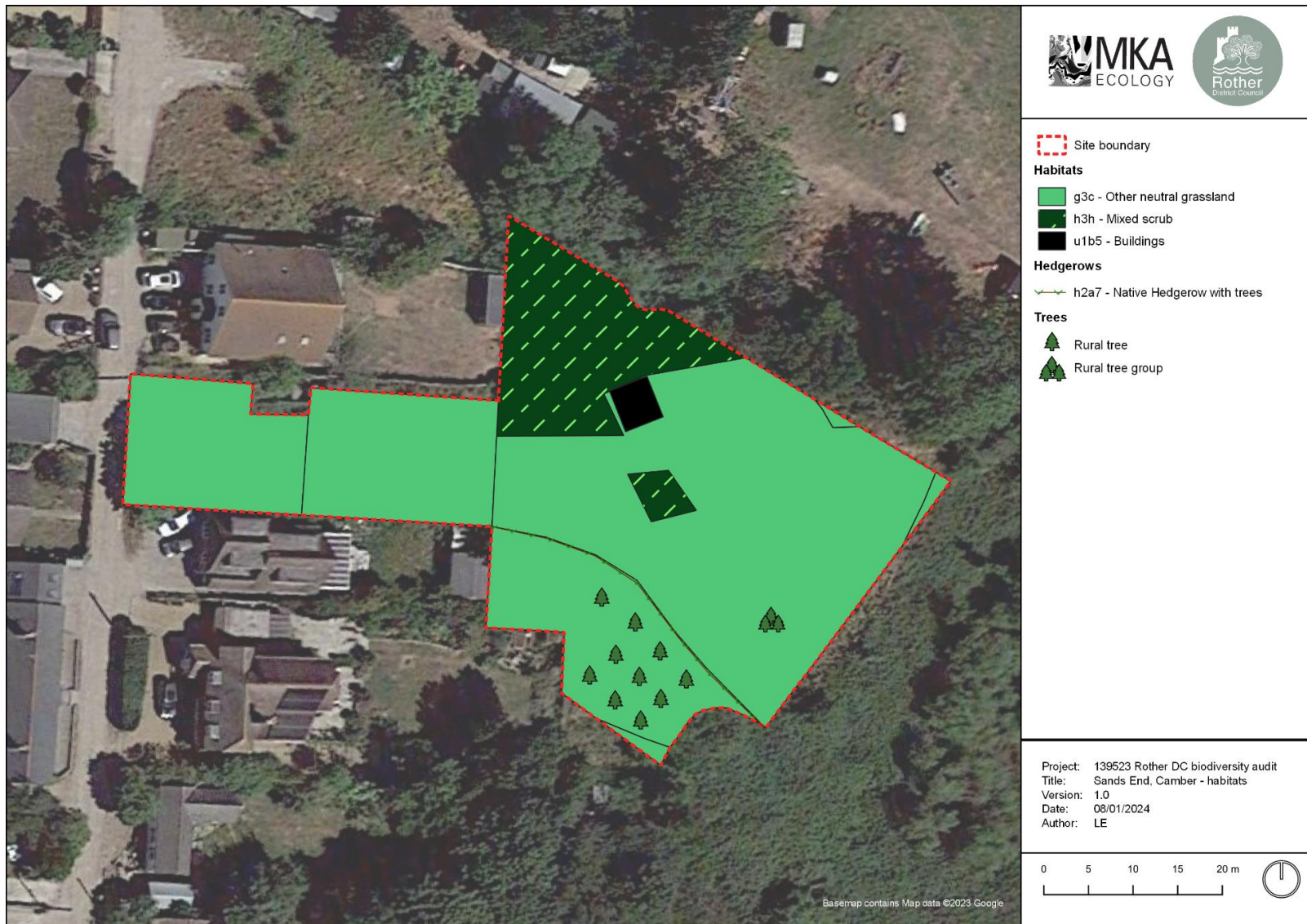
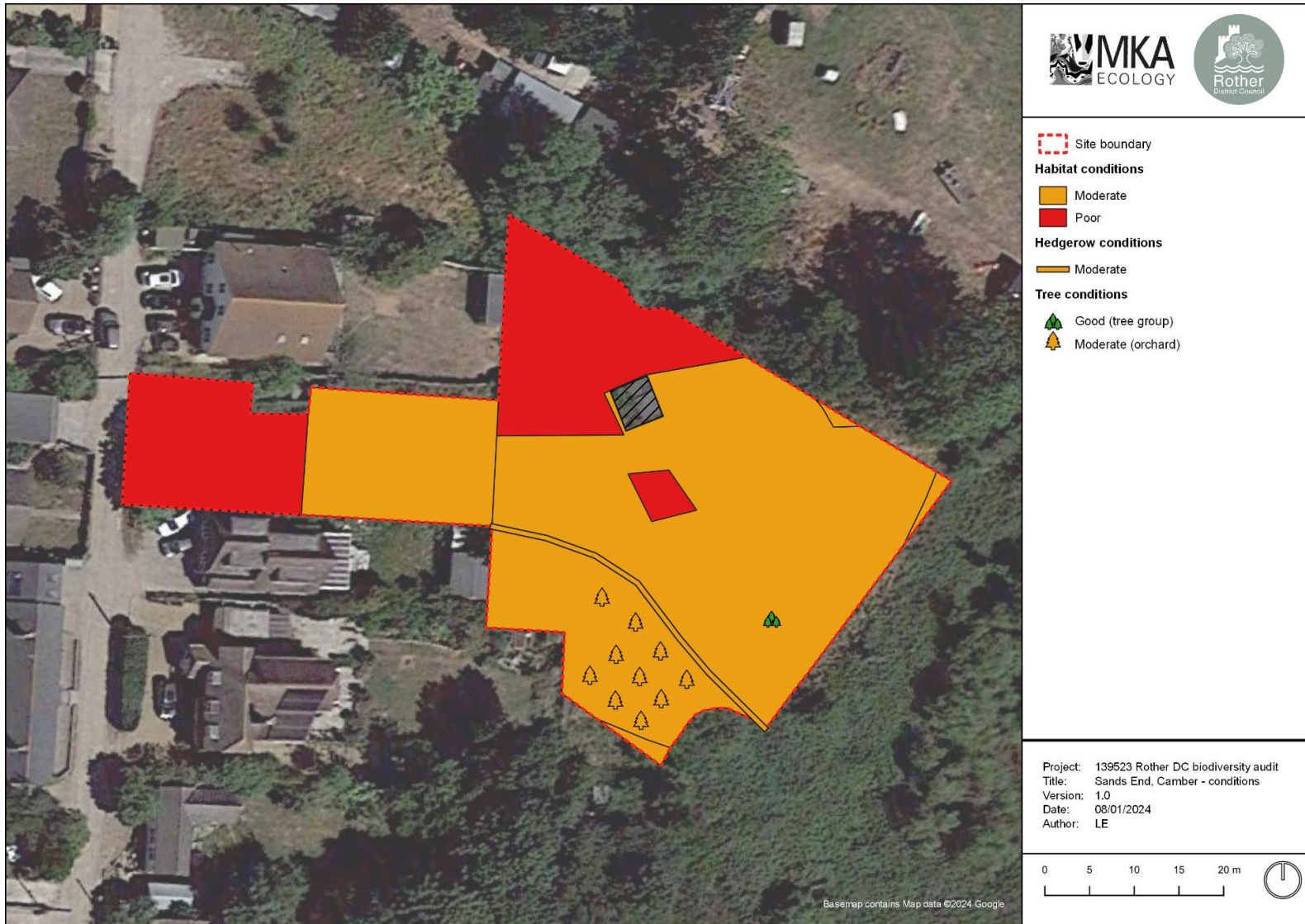


Figure 2: Condition assessments



1.6. Photographs

Photograph 1: Traditional orchard



Photograph 2: Other neutral grassland



Photograph 3: Mixed scrub



Photograph 4: Building



Photograph 5: Native hedgerow with trees



Photograph 6: Group of rural trees



1.7. Priority habitats

The following Priority Habitats are present at this location;

- Traditional orchards
- 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 Sands End, Camber, based on broad habitat types, are shown in the table below.

Habitat type	Total biodiversity units
Traditional orchard (over other neutral grassland)	0.47
Other neutral grassland	1.39
Mixed scrub	0.17
Rural trees (group)	0.11
Total	2.14
Linear features type	Total biodiversity units
Native hedgerow with trees	0.04
Total	0.04

1.9. Invasive non-native species

Japanese knotweed *Fallopia japonica* was recorded at Land at Sands End, along the northern border of the middle grassland field (Target Note IS1, Figure 1). Japanese knotweed is listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

1.10. Constraints

- Presence of nesting birds within the hedgerows, dense scrub and trees.
- Presence of reptiles (common lizard *Zootoca vivipara* recorded during site visit) in grassland and scrub habitats.
- Potential presence of amphibians (such as great crested newts *Triturus cristatus*) in the thicker vegetation during their terrestrial phase, due to the presence of a ditch to the north of the site.
- Potential use of the habitats onsite by foraging and commuting bats.
- Potential presence of hedgehogs *Erinaceus europaeus*.

- Potential presence of badger *Meles meles* setts (although no setts recorded during the site visit, badgers likely use the site for foraging).

1.11. Opportunities

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

Opportunities - Habitats

Habitat type	Opportunities
Traditional orchard	Traditional orchards are a Habitat of Principal Importance. In addition to the presence of fruit trees, an important aspect of this habitat is the quality of the grassland underlying the trees. The following measures would contribute to improving the condition of the orchard: <ul style="list-style-type: none"> • Reducing cover of scrub in the grassland • Increasing botanical richness within the grassland • Introducing deadwood features (see species section below).
Other neutral grassland	The grassland is generally suffering from a lack of regular management, but the baseline assessment indicates that it could support a wider diversity of grassland species. Reducing scrub and occurrence of undesirable species (creeping thistle, common nettle) would be a first step, followed by increasing botanical diversity as a longer-term goal.
Mixed scrub	The scrub forms an important part of the mosaic within the site, but will always be a balancing act between managing encroachment into grassland, which is a higher distinctiveness habitat.
Hedgerows	Infill planting to reduce gaps and increase overall width of the hedge. Removal of undesirable species within the adjacent grassland will also help improve condition of this hedgerow. The quality of the hedgerows will also be improved by reducing the frequency of hedgerow trimming, which will allow hedgerows to establish a width and height above 1 metre, and ideally more. The bases of hedgerows can be improved as habitat niches by leaving a strip of at least 1m on either side of the hedgerows unmown and undisturbed. There is also scope to plant more hedgerows across the site, along the existing boundary and fence lines.

Opportunities - Species

Species	Opportunities
Invertebrates (saproxylic)	<p><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).</p> <p><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.</p> <p>This recommended particularly for the orchard.</p>
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 on the mature hawthorn trees and trees within the hedgerow. Bird boxes with varying entrance hole sizes should be used to provide for a range of species.
Amphibians	Creation of a wildlife pond within one of the grassland parcels would add a high value habitat to the existing habitat mosaic, particularly of value to local amphibian populations.
Reptiles	Reptiles are present at the site, and could be supported through creation of bespoke reptile refugia and hibernacula, providing additional areas for basking and foraging.
Bats	Installation of bat boxes where possible.
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:

- Reduce scrub and undesirable species within grassland;
- Hedgerow infill planting and plant new hedgerows;
- Introduce deadwood features into orchard;

Long-term targets

Some key targets for long term planning;

- Increasing botanical diversity of grassland.

1.13. Further monitoring work/other activities

It is encouraged that local volunteer groups conduct regular Bioblitz surveys in the park to monitor local wildlife. The orchard in particular provides an opportunity to rejuvenate local management of the site, through creation of a community orchard.

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, particularly the grassland habitats and trees within the orchard, such as increased drought 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>g3c – Other neutral grassland</p> <p>g3c – Other neutral grassland (27 traditional orchard)</p>
<p><i>Description</i></p> <p>g3c – Other neutral grassland:</p> <p>Land at Sands End comprises four parcels of grassland, separated by fences. The grassland parcels are broadly similar in composition. Species assemblages indicate the site has not been subject to artificial nutrient inputs, with a variety of grass species occurring throughout the site: Yorkshire fog <i>Holcus lanatus</i>, cock’s-foot <i>Dactyllis glomerata</i>, rough meadow-grass <i>Poa trivialis</i>, common couch <i>Elymus repens</i>, meadow barley <i>Hordeum secalinum</i>, creeping bent <i>Agrostis stolonifera</i> and small cat’s tail <i>Phelum bertolonii</i>. There is a low diversity of herbaceous species, generally confined to common fleabane <i>Pulicaria dysenterica</i>, ox-eye daisy <i>Leucanthemum vulgare</i>, bristly oxtongue <i>Helminthotheca echioides</i> and dandelion <i>Taraxacum</i> agg. Apart from fleabane, which was locally dominant in some areas, forb abundance is generally low. The grassland parcels beneath the orchard and closest to Farm Lane are also suffering from scrub encroachment (bramble <i>Rubus fruticosus</i> agg.). Across all grasslands, species indicative of unfavourable condition, including common nettle <i>Urtica dioica</i> and creeping thistle <i>Cirsium arvensis</i>, are present in significant abundance.</p> <p>g3c – Other neutral grassland (27 traditional orchard)</p> <p>A fourth parcel, to the south, is an orchard, containing apple <i>Malus</i> sp., crab apple <i>Malus sylvestris</i>, pear <i>Pyrus</i> sp., Victoria plum <i>Prunus domestica</i> and medlar <i>Mespilus germanica</i> trees.</p>
<p><i>Condition</i></p> <p>g3c – Other neutral grassland:</p> <p>Two parcels in moderate condition and two parcels in poor condition. All parcels fail criteria on the basis of lack of structural diversity and botanical diversity. Some parcels also have significant scrub encroachment and significant levels of undesirable species.</p> <p>g3c – Other neutral grassland (27 traditional orchard)</p> <p>Moderate condition. Fails criteria based on absence of mature/veteran trees and deadwood features; scrub encroachment; and condition of the underlying grassland.</p>

Heathland and scrub

UKHabs habitat types present (secondary codes in brackets)

h3h: Mixed scrub

Description

h3h: Mixed scrub

The small areas of dense scrub are dominated by bramble *Rubus fruticosus* agg., elder and hedge bindweed *Calystegia sepium*.

Condition

h3h: Mixed scrub

Northern parcel in poor condition, on the basis of poor species diversity, physical structure and age diversity.

Parcel in centre of the site in moderate condition, on the basis of poor species diversity, physical structure and age diversity.

Hedgerows

UKHabs habitat types present (secondary codes in brackets)

h2a7 – Native hedgerow with trees

Description

h2a7 – Native hedgerow with trees

The orchard is separated from the rest of the site by a native hedgerow with trees, containing hawthorn, elder *Sambucus nigra*, sycamore *Acer pseudoplatanus* and birch *Betula* sp.

Condition

h2a5 – Native hedgerow with trees

Moderate condition. Fails attributes linked to hedgerow width, horizontal gapping in the base and canopy of the hedgerow, the presence of undesirable species in the ground flora surrounding the hedgerow, and the absence of mature trees.

Urban

UKHabs habitat types present (secondary codes in brackets)

u1b5 – Developed land; buildings

Description

u1b – Developed land; sealed surface

A wooden shed, seemingly used as a horse stable and for storage.

Urban

Condition

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

1.16. References

UKHab Ltd (2023) *UK Habitat Classification Version 2.01*. Available at: <http://www.ukhab.org/>

Natural England (2010) *Traditional orchards: planting and establishing fruit trees*.

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.

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 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:

- Amenity grassland was categorised separately as 'g4a', a level 4 code of 'g4 - modified grassland'.
- 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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