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Biodiversity Audit

Hoads Wood, Fairlight

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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 Hoads Wood.

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, 2023a,b). 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).

Hoads Wood is not currently covered by any international, national or local nature conservation designations. The woodland parcel is included on Natural England's Ancient Woodland Inventory (Natural England, 2023d) and Priority Habitat Inventory (Natural England, 2023c). The site is also located within the Hastings Fringe Biodiversity Opportunity Area (Sussex Biodiversity Partnership, 2024). Target habitat types for this BOA for creation, restoration and management are woodland and urban habitats.

1.4. Site description

Hoads Wood is centred on TQ 86425 12359, and is located on the northern edge of the coastal village of Fairlight. It consists of a parcel of woodland, which gives the site its name, together with two grassland fields to the south of the wood. The whole site is 12ha. It is surrounded by a mosaic of predominantly arable fields and woodland, connected by a network of hedgerows. There are a number of large ancient woodland parcels in the area surrounding Fairlight, including Hoads Wood; it is directly connected to Mallydams Wood to the west, with Knowle Wood and Stonelink Wood also to the south and east, respectively. The village of Fairlight lies to the south, with the coast located 1km from the site.

Neither the woodland or the grasslands have not been subject to regular management in recent years; the woodland was formerly used as sweet chestnut *Castanea sativa* coppice. The site was leased to a new tenant in February 2023, who plans to rejuvenate coppicing cycles in the woodland. A public footpath runs through the east field and skirts the edge of the woodland.

The table below shows the habitats which are present at Hoads Wood. Detailed descriptions of each habitat type are given below and in Section 1.16. It should be noted that, as well as ancient woodland, Hoads Wood also supports acid grassland, which is a nationally rare and high priority habitat for conservation and restoration.

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.
Lowland dry acid grassland	Grassland growing on acidic soils with acidic indicator plant species, and low occurrence of palatable grasses typical of modified or improved grassland. A Priority Habitat type characterised by high plant species diversity and occurrence of specific indicator species.
Lowland acid grassland	Grassland growing on acidic soils with acidic indicator plant species, and low occurrence of palatable grasses typical of modified or improved grassland.
Bracken	Areas dominated by bracken *Pteridium aquilinum* larger than 0.04ha.
Buildings	Built structures.
Native species-rich hedgerow with trees	Hedgerows comprising at least five native woody species, and including mature tree standards.

1.5. Maps

The maps presented below show the existing habitats at Hoads Wood, 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.
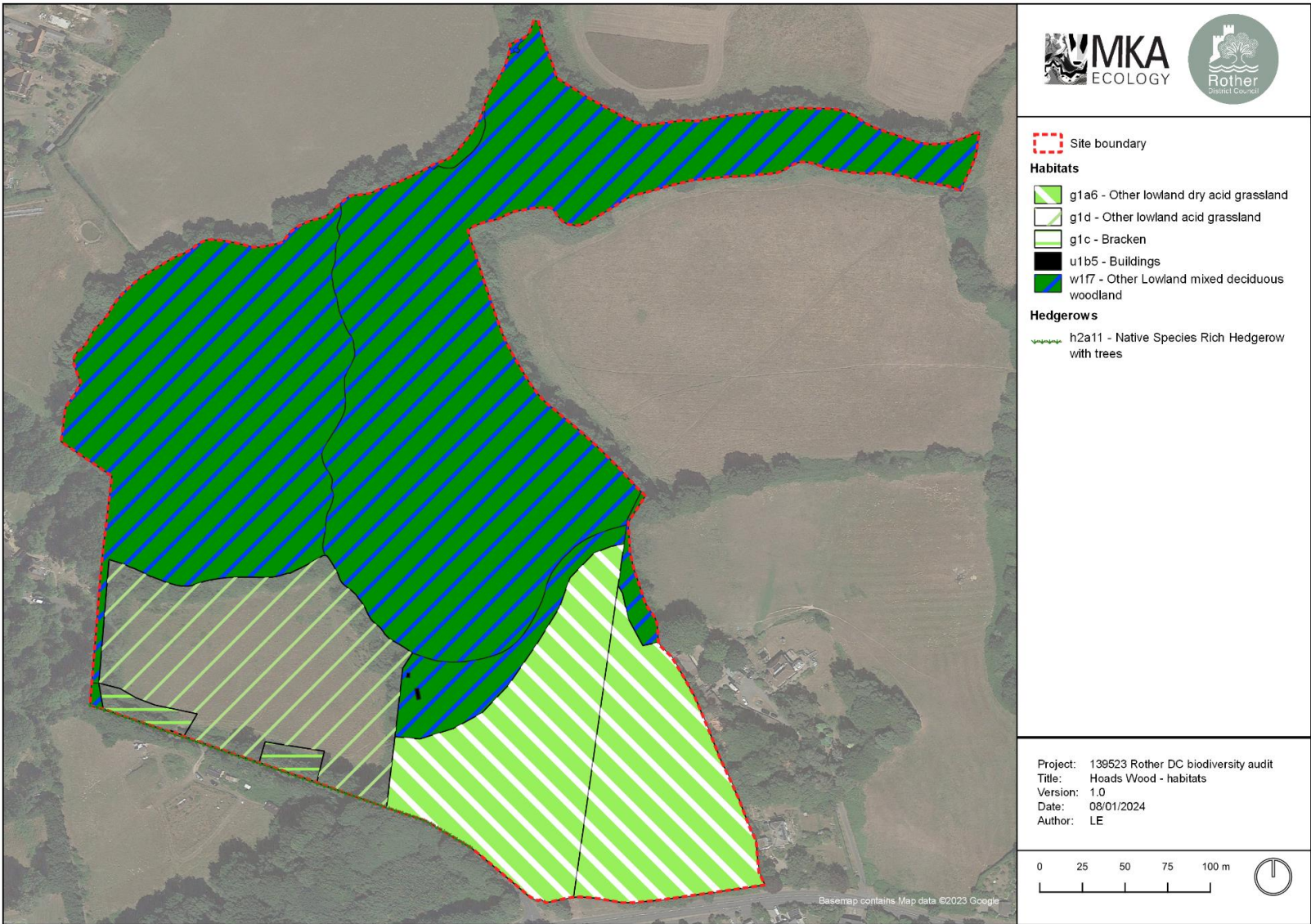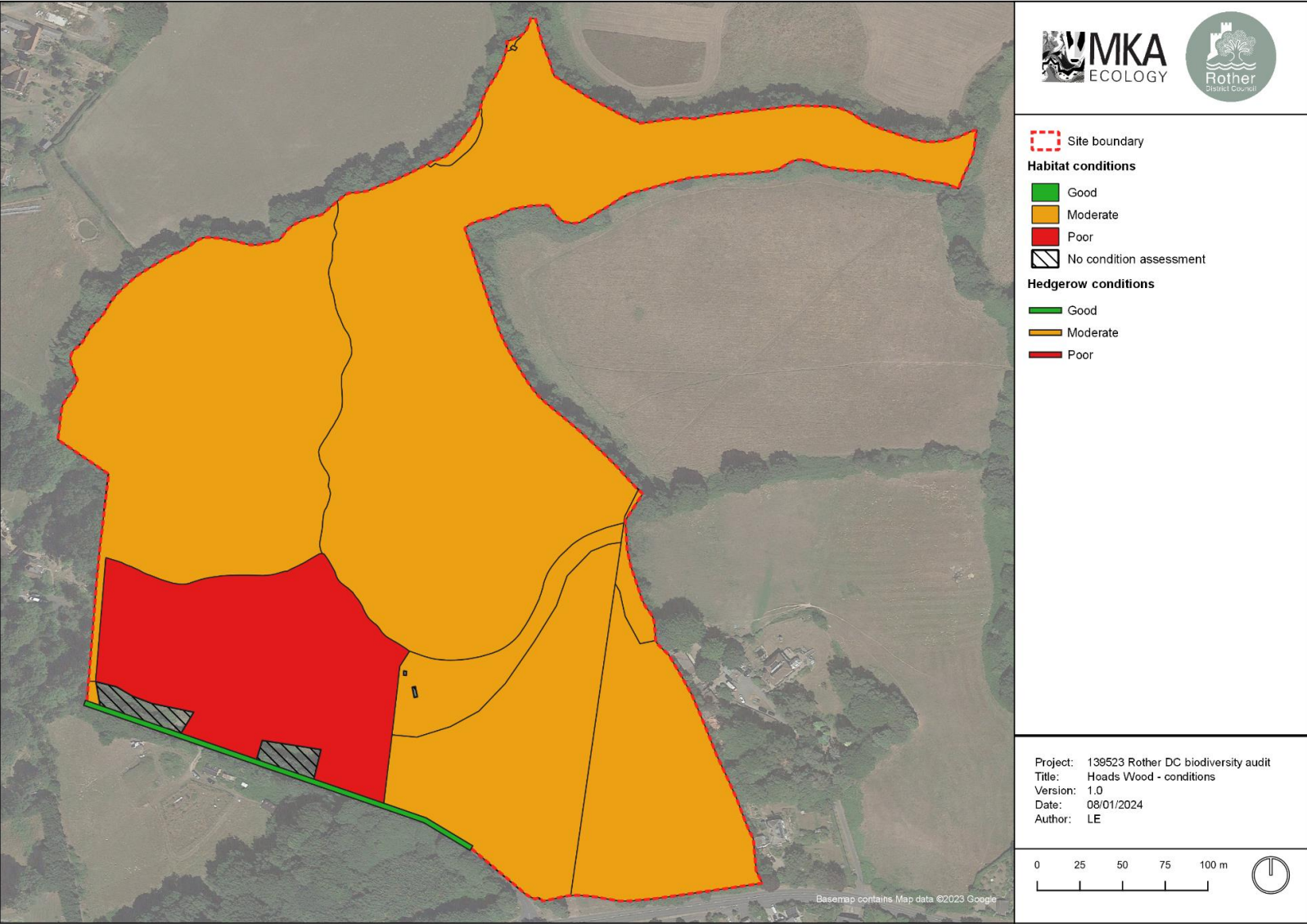
Figure 1: UK Habitats Classifications map

Figure 2: Condition assessments

1.6. Photographs

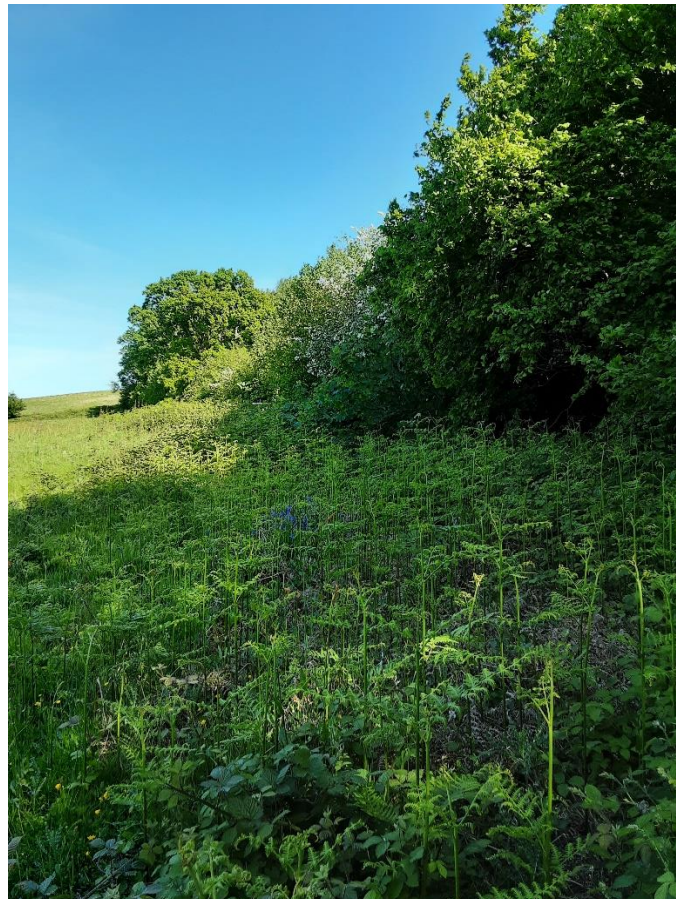**Photograph 1: Lowland mixed deciduous woodland**

Photograph 2: Lowland dry acid grassland (east field)

Photograph 3: Lowland acid grassland (west field)

Photograph 4: Bracken

Photograph 5: Buildings

Photograph 6: Native species-rich hedgerow with trees

1.7. Priority habitats

The following Priority Habitats are present at this location;

- Lowland dry acid grassland;
- Lowland mixed deciduous woodland; and
- 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 Hoads Wood, based on broad habitat types, are shown in the table below.

Habitat type	Total biodiversity units
Lowland mixed deciduous woodland	107.36
Lowland dry acid grassland (east field)	46.18
Lowland acid grassland (west field)	7.68
Bracken	0.26
Buildings	0.00
Total habitat units	**161.49**
Linear features type	Total biodiversity units
Native species-rich hedgerow with trees	4.97
Total hedgerow units	**4.97**

1.9. Invasive non-native species

Rhododendron *Rhododendron ponticum* and cherry laurel *Prunus laurocerasus* were both recorded within the woodland. Rhododendron in particular is widespread throughout this habitat, forming a significant part of the understorey.

Rhododendron is listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). Cherry laurel is not listed, but has a similar growth habit and can outcompete native woodland vegetation. The presence of both species incurs a penalty in the Biodiversity Metric condition assessment for woodland.

No invasive non-native species were recorded in the grassland habitats at Hoads Wood.

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 hedgerows, dense scrub and trees.
- Presence of reptiles in grassland, woodland and scrub habitats.
- Potential presence of amphibians (such as great crested newt *Triturus cristatus*) in thick vegetation during their terrestrial phase, due to the presence of ditches to the north of the site.
- Potential use of the habitats onsite by roosting, foraging and commuting 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; there are records in adjacent Mallydams Wood from 2016 (SxBRC, 2023).

1.11. Opportunities

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

Opportunities - Habitats

Habitat type	Opportunities
Lowland mixed deciduous woodland	This is an ancient woodland and a Priority Habitat, and is allocated high distinctiveness in the Biodiversity Metric. The interventions that would contribute most significantly to enhancing this habitat are: • Reducing (ideally eliminating) cover of rhododendron and cherry laurel and encouraging growth of native species; • Introducing rotational coppicing to create more areas of open space within the woodland, and encourage regeneration of native flora. Browsing pressure may also be negatively impacting the woodland, but this is hard to manage in practice without coordinated effort at a landscape scale. Measures to protect recovering vegetation (such as coppice stools) from over-browsing can be incorporated into the management practices.

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Habitat type	Opportunities
Lowland dry acid grassland (east field)	This habitat type is allocated very high distinctiveness in the Biodiversity Metric, and is a Priority Habitat. The interventions that would contribute most significantly to enhancing this habitat are: • Maintaining soil conditions (pH, nutrient levels) in their current state, so the site can continue to support this rare habitat. Soil sampling may help inform the best approach. • Reducing cover of bracken • Introducing grazing or a mowing regime, particularly to the western side of the field, to open up the sward and increase cover of herbaceous species. Further detailed botanical survey is recommended to inform the best management approach.
Lowland acid grassland (west field)	This habitat type is allocated medium distinctiveness in the Biodiversity Metric. The interventions that would contribute most significantly to enhancing this habitat are: • Reducing cover of bracken and scrub • Introducing grazing or a mowing regime to open up the sward and increase cover of herbaceous species. The latter intervention may, in time, encourage the development of more acidic grassland habitats. Further detailed botanical survey and soil sampling is recommended to inform the best management approach.
Bracken	This habitat type is allocated medium distinctiveness in the Biodiversity Metric. Whilst bracken stands hold some potential for wildlife, this is a common and widespread habitat across Rother District. The interventions that would contribute most significantly to enhancing this habitat are: • Reducing cover of bracken and instead encouraging development of grassland habitats. This intervention would significantly increase the value of these habitat parcels within the biodiversity metric.
Native species-rich hedgerow with trees	This habitat type is allocated high distinctiveness in the Biodiversity Metric, and this particular hedgerow scores the maximum within the condition assessment. Whilst the hedgerow is currently in an ideal condition to support wildlife, changes in management (or no management at

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Habitat type	Opportunities
	all) may result in degradation of this condition. The interventions that would contribute most significantly to enhancing this habitat are: • Introducing a hedgerow management plan, including a rotational cycle for phased cutting or laying of the hedgerow. 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.

Opportunities - Species

Species	Opportunities
Invertebrates (saproxylic)	Management plan for the woodland should include maintenance of standing and fallen deadwood (from native species) within the woodland. Some stands of fallen deadwood could be enhanced further: *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 generalist pollinators. Specific enhancements within grassland for small heath *Coenonympha pamphilus*, a Species of Principal Importance recorded in close proximity to Hoads Wood.
Birds	Installation of owl boxes within the woodland (assumption that the woodland and hedgerow provide ample nesting opportunities for generalist bird 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 could be supported through creation of bespoke reptile refugia and hibernacula, providing additional areas for basking and foraging.
Bats	Installation of bat boxes within the woodland.
Hedgehog	Creation of large log and brash piles.

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Species	Opportunities
Hazel dormouse	Installation of dormouse boxes within the woodland, and management for key food plants for this species within the understorey (e.g. hazel, honeysuckle).

1.12. Targets

Short-term targets

Some key targets for upcoming 5 to 10 years:

- Further botanical surveys and soil sampling of grassland, to inform management approaches for each field;
- Reduce scrub and bracken within grasslands, and commence mowing regime, informed by survey effort;
- Create a management plan for the woodland, including plans to reduce cover of rhododendron and reintroduce coppicing;
- Implement reduction of rhododendron and coppicing.
- Create and implement hedgerow management plan.

Long-term targets

Some key targets for long term planning;

- Explore options for grazing grassland areas;
- Investigate feasibility of Hoads Wood achieving designated area status for its acid grassland habitat and ancient woodland (Local Wildlife Site as a minimum).

1.13. Further monitoring work/other activities

At Hoads Wood, specific surveys for protected and priority species could be undertaken for hazel dormouse, bats, invertebrates and reptiles. 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.

Further specialist botanical survey work, and soil sampling, is recommended to inform management activities to enhance grassland habitats.

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) **g1a6 – Other lowland dry acid grassland** **g1d – Other lowland acid grassland** **g1c – Bracken**
Description **g1a6 – Other lowland dry acid grassland** This refers to grassland habitats in the eastern field. Underlying soils in this area are slightly acidic (LandIS, 2024). The grassland is situated on a steep north-east facing slope. A public footpath runs north-south across the middle of the field, down the slope. Generally, grassland west of the footpath has a dense, tussocky sward. To the east of the footpath, the sward is much shorter with frequent patches of bare ground; both likely due to rabbit *Oryctolagus cuniculus* grazing, with a warren present in the eastern boundary edge of the field. The grassland in this field is notably species-rich, with at least 10 species per m^2 recorded in all quadrats. Grass species recorded include red fescue *Festuca rubra*, sweet vernal grass *Anthoxanum odoratum*, common bent *Agrostis capillaris*, Yorkshire fog *Holcus lanatus*. Field woodrush *Luzula campestris* and pill sedge *Carex pilulifera* were also recorded, particularly in rabbit-grazed areas. Herbaceous species recorded include common knapweed *Centaurea nigra*, bluebell *Hyaconthoides non-scripta*, pignut *Conopodium majus*, tormentil *Potentilla erecta*, early forget-me-not *Myosotis ramosissima*, bird's-foot-trefoil *Lotus corniculata,* common stork's-bill *Erodium cicutarium*, mouse-ear hawkweed *Pilosella officinarum*, wood sage *Salvia officinalis* and common sorrel *Rumex acetosa*. Heath-spotted orchid *Dactylorhiza maculata* and lousewort *Pedicularis sylvatica* were also recorded in this field, towards the bottom of the slope. Indicators of nutrient-poor and/or acidic grassland for g1a (as defined in UKHab, 2023) identified in this grassland are lousewort, tormentil, pignut, bird's-foot trefoil, common stork's-bill and mouse-ear hawkweed. Heath-spotted orchid *Dactylorhiza maculata* was also recorded in this field, towards the bottom of the slope. The habitat parcel qualifies as g1a because: it meets criteria 1 and 3 specified for this habitat type in UKHab (2023) relating to species richness and low coverage of species indicating nutrient enrichment; as well as meeting all three further criteria relating to abundance of indicator species. **g1d – Other lowland acid grassland**

Grassland
This refers to grassland habitats in the western field. Underlying soils in this area are slightly acidic (LandIS, 2024). The grassland is situated on a gentle slope facing north-east. There is no formal public access to this field; some desire lines are present leading into the field from the adjacent woodland, but it does not appear to be accessed regularly. The grassland is not as species-rich as that in the east field, and has a dense, grass-dominated sward. Grass species recorded include red fescue, sweet vernal-grass, rough meadow-grass *Poa trivialis*, Yorkshire fog, common bent and creeping bent *Agrostis stolonifera*. Herbaceous species recorded include creeping cinquefoil *Potentilla reptans*, Germander speedwell *Veronica chamaedrys*, bird's-foot trefoil and common sorrel. This habitat parcel is classified as acid grassland (g1d) on the basis of the apparent underlying soil conditions. However, the assemblage of acidic indicator plant species observed in the east field is absent here. It is possible the field has been subject to nutrient inputs that have altered the composition of the soil. **g1c – Bracken** There are two stands of bracken along the southern boundary of the west boundary, each greater than 0.04ha in area. These areas therefore qualify as an individual habitat parcel.
Condition **g1a6 – Other lowland dry acid grassland** Moderate condition. Condition of this habitat is limited primarily by bracken encroachment, which is greater than 20% cover in the east field. The grassland currently has a good variety in sward height (maintained by rabbit grazing), and coverage of undesirable species is low. Areas of bare ground are concentrated in the south-east corner, again associated with rabbits, but do not exceed the threshold of 5%. **g1d – Other lowland acid grassland** Poor condition. This habitat fails most criteria on the basis of: lack of species indicative of underlying soil conditions; homogeneity in sward height across the parcel; cover of scrub (bramble *Rubus fruticosus agg.*) and bracken encroachment; and cover of undesirable species for grassland (creeping thistle *Cirsium arvense* and creeping buttercup *Ranunculus repens*. **g1c – Bracken:** no condition assessment for this habitat type.

Woodland
UKHabs habitat types present (secondary codes in brackets) **w1f7 – Other lowland mixed deciduous woodland**
Description **w1f7 – Other lowland mixed deciduous woodland** Tree species making up the canopy layer within Hoads Wood consist predominantly of sweet chestnut coppice and pedunculate oak *Quercus robur* standards. There is a consistent understorey layer present throughout most of the wood, although this is dominated in many places by large stands of rhododendron. Immature rowan *Sorbus aucuparia*, honeysuckle *Lonicera periclymenum*, holly *Ilex aquifolium*, alder *Alnus glutinosa* and birch *Betula sp* are also present occasionally. The ground flora includes a large number of ancient woodland indicators for south-east England, including scaly male-fern *Dryopteris affinis*, hard fern *Blechnum spicant*, yellow archangel *Lamiastrum galeobdolon*, wood anemone *Anenome nemorosa*, yellow pimpernel *Lysimachia nemorum*, wood sorrel *Oxalis acetosella*, enchanter's-nightshade *Circaea lutetiana* and bluebell. There are numerous informal paths throughout the wood, and a number of drainage channels, many of which are silted up. In places fallen trees have created temporary clearings, but there is no regular management currently. Large standing and fallen deadwood features are abundant, particularly associated with veteran oak trees. No direct evidence of deer browsing was observed, but there is abundant rabbit activity (warrens, digging).
Condition **w1f7 – Other lowland mixed deciduous woodland** Moderate condition. The woodland scores 32 out of a possible 39, with 33 or above qualifying as good condition. The main factors limiting condition are: presence of invasive non-native species, in particular rhododendron and cherry laurel; and a low occurrence of rides, glades and clearings relative to the woodland's size.

Hedgerows
UKHabs habitat types present (secondary codes in brackets) **h2a11 – Native species-rich hedgerow with trees**
Description **h2a11 – Native species-rich hedgerow with trees** This hedgerow forms the south boundary of the site. Ten woody species were recorded within the hedgerow, including shrubs and mature trees: wild privet *Ligustrum vulgare*, elder *Sambucus nigra*,

Hedgerows
holly *Ilex aquifolium*, ash *Fraxinus excelsior*, hawthorn *Crataegus monogyna*, birch *Betula sp.,* plum *Prunus domestica*, hazel *Corylus avellana*, sweet chestnut and pedunculate oak *Quercus robur.*
Condition **h2a11 – Native species-rich hedgerow with trees** Good condition. The hedgerow passes all condition criteria, being over 1.5m high and wide; having no significant gaps at the base of the hedge or within the canopy; negligible levels of damage and undesirable species for hedgerows; no invasive species; and containing several veteran oak tree standards.

Urban
UKHabs habitat types present (secondary codes in brackets) **u1b5 – Developed land; buildings**
Description **u1b – Developed land; buildings** There are two disused buildings within the woodland, in the southern tip.
Condition **u1b – Developed land; sealed surface:** no condition assessment for this habitat type.

1.16. References

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

LandIS (2024) https://www.landis.org.uk/soilscapes/. Accessed 12/01/2024.

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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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, 2023a,b) 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, 2023a,b). 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.