



Technical Appendix 8.1: Habitat Survey Report

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1 INTRODUCTION

1.1.1.1 This Technical Appendix (TA) describes the methods and results of the habitat surveys undertaken to obtain baseline ecological information in connection with the proposed ground-mounted solar photovoltaic (PV) system and Battery Energy Storage System (BESS) (the Proposed Development). The following terminology is used throughout this TA:

- The Site: all land within the proposed red line boundary as shown on **Figure 8.1.1, Appendix A**;
- The Development: the proposed solar PV farm and BESS, inclusive of all necessary infrastructure. The Development layout is shown on **Figure 8.1.2, Appendix A**; and
- Habitat Survey Area (HSA): the land within which habitat surveys were undertaken, as shown on **Figure 8.1.1, Appendix A**.

1.2 The Proposed Development

1.2.1.1 The Proposed Development will occupy an area of approximately 184 hectares (ha), with the layout shown in **Figure 8.1.2, Appendix A**. A full, detailed information on the Proposed Development is found in **Chapter 3: Development Description** of the Environmental Impact Assessment Report (EIAR).

1.3 Site Description

1.3.1.1 The Site is centred on grid coordinates National Grid Reference (NGR) 74514 71531. At the closest points, the Site boundary is approximately 50 metres (m) north of Oldhamstocks, and 7.8 kilometres (km) southeast of Dunbar.

1.3.1.2 A full description of the Site and its surroundings can be found in **Chapter 2: Site Design and Evolution** of this EIAR.

1.4 Purpose of the Report

1.4.1.1 Habitat surveys were undertaken to classify, map and describe the vegetation communities present within the Site and identify those areas of greatest ecological importance. The purpose of this report is to detail the methods and results of the habitat surveys.

1.4.1.2 Information relating to protected species and bats are detailed within **Volume 3 Technical Appendix 8.2: Protected Species Survey Report** and **Technical Appendix 8.3: Bat Survey Report** and are not reported here.

2 METHODS

2.1 UK Habitat Classification Survey

- 2.1.1.1 A UK Habitat Classification (UKHab) survey was carried out between the 23 and 27 September 2024 in accordance with the latest guidelines¹. The UKHab survey was undertaken by ERM Senior Consultant Monica Wood, who is an experienced botanist and competent in undertaking UKHab surveys.
- 2.1.1.2 The UKHab survey encompassed all land within the HSA as shown on **Figure 8.1.1, Appendix A**.
- 2.1.1.3 The aim of the survey was to classify and map habitats according to the methods described in version 2 of the UK Habitat Classification User Manual¹. Target notes (TNs) were made to illustrate examples of habitats present (Appendix B). The DAFOR (dominant, abundant, frequent, occasional or rare) scale was used to describe the abundance of floral species. The DAFOR scale is used for semi-quantitative sampling, to provide a quick estimate of the relative abundance of species in a given area. The nomenclature of vascular plants follows Stace (2019)². Plants and their frequency of occurrence were recorded using the subjective DAFOR scale (dominant, abundant, frequent, occasional or rare)³.
- 2.1.1.4 Any invasive non-native species of plant encountered during the Habitat Surveys, including Japanese knotweed (*Reynoutria japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*) were recorded to inform the need for further specialist surveys and advice.
- 2.1.1.5 Typically, a National Vegetation Classification (NVC) survey would have been conducted on Ground Water Dependent Terrestrial Ecosystems (GWDTE) however no such habitats were present within the survey area.

2.2 Survey Limitations

- 2.2.1.1 Land access was not agreed with the landowners of the properties at Oldhamstocks Mains and no ecological data could be collected in this area, denoted by the hatched lines on **Figure 8.1.1, Appendix A**. Therefore, no habitat data could be collected within this area. Oldhamstocks Mains is two residential properties and their gardens, which will not be directly affected by the Proposed Development, and all other areas of the Site have been surveyed to understand the habitats present, as such a robust habitat survey has been undertaken and all areas of the Site subject to direct effects has been surveyed. Therefore, this is not considered a considerable limitation.

¹ UKHab LTD (2023) *UK Habitat Classification Version 2.0* [Online] Available at: [UKHab – UK Habitat Classification](#) (accessed February (2025))

² Stace, C (2019) *New Flora of the British Isles 4th edition*. Cambridge University Press, UK.

³ The DAFOR scale is used for semi-quantitative sampling, to provide a quick estimate of the relative abundance of species (generally plants) in a given area. Abundance (number of individuals) and cover (area coverage) are often used interchangeably in this type of surveying, although they may have very different meanings.

- 2.2.1.2 Access was largely limited to the Site, and in places there was limited access granted for land beyond the Site boundary. As such habitats were recorded and assessed from adjacent land within the Site where access was available to assess inaccessible habitat areas beyond it, and although a detailed species list could not always be obtained, a broad classification of the habitat type was able to be confirmed. In addition, all land within the Site was surveyed and so a robust survey of all areas subject to direct effects from the Proposed Development was undertaken, so this is not considered a significant limitation.

3 BASELINE RESULTS

3.1 UKHab Survey Findings

- 3.1.1.1 The HSA is characterised by rural habitats, consisting mainly of arable fields and pasture. Arable margins, hedgerows, ditches were present along field boundaries. Small parcels of woodland, scrub and neutral grassland were also present within the ESA.
- 3.1.1.2 The UKHab communities recorded on site during the survey are presented **Table 3.1**, listed by classification grouping order as set out in the latest guidance¹. **Figure 8.1.3** details the location of the communities and associated TN. Description of TNs are presented in **Appendix B**.
- 3.1.1.3 Section marked with a “*” on **Table 3.1** are those in which access was not available, so broad habitat were mapped but it was not possible to obtain a species list; as such, they are included on **Table 3.1** and on **Figure 8.1.1** but no detailed paragraph for those habitats is provided below.

TABLE 3.1 UKHAB COMMUNITIES RECORDED WITHIN THE SURVEY AREA

BROAD HABITAT TYPE	UKHAB CODE	HABITAT CLASSIFICATION
Grassland	g	Grassland*
	g3c	Other neutral grassland
	g3c8	Holcus-Juncus grassland
	g4	Modified grassland
Woodland and forest	w	Woodland *
	w1f7	Other lowland mixed deciduous woodland
	w1h	Other woodland; mixed *
	w1h5	Other woodland; mixed mainly broadleaved *
	w1h6	Other woodland; mixed mainly conifer
	w2	Coniferous Woodland*
	w(206)	Felled woodland
Heathland and scrub	h2a	Native hedgerow

BROAD HABITAT TYPE	UKHAB CODE	HABITAT CLASSIFICATION
	h2b	Non-native and Ornamental Hedgerow
	h3e	Gorse scrub
	h3h	Mixed Scrub *
Cropland	c1c	Cereal crops
	c1c5	Winter stubble
	c1d	Non-cereal crops
Urban	u1b5	Buildings
	u1e	Built linear features
Rivers and lakes	r2b	Other Rivers and Streams

* Surveyors did not have access to these areas, so it was not possible to obtain a species list as such they are not described below.

3.1.2 Grassland

Other Neutral Grassland (g3c)

- 3.1.2.1 A section of unmanaged grassland is present in the north of the Site between an arable field and a stream (TN1). This grassland has a diverse sward, composing of abundant creeping thistle (*Cirsium arvense*), false oat-grass (*Arrhenatherum elatius*), and Yorkshire fog (*Holcus lanatus*), frequent cock's-foot (*Dactylis glomerata*), dock (*Rumex* sp.), and bedstraw (*Galium* sp.), occasional common knapweed (*Centaurea nigra*), hedge mustard (*Sisymbrium officinale*), hogweed (*Heracleum sphondylium*), ragwort (*Jacobaea vulgaris*), scentless mayweed (*Tripleurospermum inodorum*), vetch (*Vicia* sp.), and yarrow (*Achillea millefolium*) and willow scrub (*Salix caprea*), and marsh thistle (*Cirsium palustre*).

Holcus-Juncus Grassland (g3c8)

- 3.1.2.2 Two sections of Holcus-Juncus grassland are present in the south of the Site (TN2 and TN3). These areas had ditches running through them with TN2 being downstream of TN3. Yorkshire fog was abundant within both sections. Other grasses that were frequent or abundant included false oatgrass, cock's-foot, timothy (*Phleum pratense*), and perennial ryegrass (*Lolium perenne*). A large portion of the area was marshy and contained aquatic species including soft rush (*Juncus effusus*), bottle sedge (*Carex rostrata*), horsetail (*Equisetum* sp.), marsh woundwort (*Stachys palustris*), and marsh thistle. Drier sections had

been colonized by ruderal species, including common nettle (*Urtica dioica*), creeping buttercup (*Ranunculus repens*), creeping thistle, great willowherb (*Epilobium hirsutum*), ragwort, dock, and cow parsley (*Anthriscus sylvestris*). Scattered scrub was also present, including hawthorn (*Crataegus monogyna*) and dogrose (*Rosa canina*). Common bird's-foot trefoil (*Lotus corniculatus*) occasionally present on TN3.

Modified Grassland (g4)

- 3.1.2.3 The large pastures located in the north of the HSA are grazed by sheep and are classified as modified grasslands (TN4-6). These areas are less diverse and include abundant perennial rye-grass and Yorkshire fog, frequent timothy, white clover (*Trifolium repens*), common mouse ear (*Cerastium fontanum*), creeping thistle, meadow grass (*Poa* sp.), creeping butter cup and pineapple weed (*Matricaria discoidea*) and occasional bent (*Agrostis* sp.), crested dog's tail (*Cynosurus cristatus*) hawkbit (*Leontodon* sp.), meadow grass (*Poa* sp.), dandelion (*Taraxacum* agg.) spear thistle (*Cirsium vulgare*) and dock.

3.1.3 Woodland and Forest

Other Lowland Mixed Deciduous Woodland (w1f7)

- 3.1.3.1 Parcels of other lowland mixed deciduous woodland are present throughout the HSA (TN7-TN14). These parcels are all semi-natural and would have been larger in the past but have been encroached upon by anthropologic activities (i.e. the creation of fields and roads).
- 3.1.3.2 On the west of the Site, (TN7-TN9) are characterized by diverse tree species and a rich ground flora, including ancient woodland indicators, which suggests that the woodland may have been continuously wooded for an extended period. The canopies varied between the parcels and contains abundant or frequent ash (*Fraxinus excelsior*), frequent or occasional pedunculate oak (*Quercus robur*), holly (*Ilex aquifolium*), sycamore (*Acer pseudoplatanus*), and sweet chestnut (*Castanea sativa*), and rowan (*Sorbus aucuparia*). Other species present included beech (*Fagus sylvatica*), hawthorn, sessile oak (*Quercus petraea*), large-leaved lime (*Tilia platyphyllos*), wych elm (*Ulmus glabra*), gorse (*Ulex europaeus*), field maple (*Acer campestre*) and honeysuckle (*Lonicera periclymenum*).
- 3.1.3.3 The ground flora in these parcels typically included abundant bluebell (*Hyacinthoides non-scripta*), cock's-foot and wood avens (*Geum urbanum*), alongside frequent common ivy (*Hedera helix*), herb Robert (*Geranium robertianum*), and wood sorrel (*Oxalis acetosella*). Other species included wavy hair-grass (*Avenella flexuosa*), creeping buttercup, and smooth lady's mantle (*Alchemilla glabra*), lady fern (*Athyrium filix-femina*), red campion (*Silene dioica*), and sanicle (*Sanicula europaea*). Abundant patches of soft rush were found in wetter areas.
- 3.1.3.4 In the centre of the site four parcels are present (TN10-TN13). These parcels were likely one woodland but are now separated by a crossroads. Ash, sycamore, hawthorn, and wych elm, were frequent or abundant across parcels. Other species present in the canopy included: beech, holly, and pedunculate oak (*Quercus robur*), alder (*Alnus glutinosa*), sweet chestnut, gorse, and dog-rose. Within the ground flora cock's-foot and Yorkshire-fog were abundant, with frequent bramble (*Rubus fruticosus*), common nettle and creeping thistle. Woodland indicators including red campion are frequent, even abundant in some parcels, alongside herb Robert, wood avens and bedstraw. Some ruderal species were also recorded, including

ribwort plantain (*Plantago lanceolata*), creeping buttercup and vetch, false oat-grass, dock and prickly sow thistle (*Sonchus asper*) were also noted within the ground flora.

- 3.1.3.5 A small coppice lies between fields in the northwest of the Site (TN14). The canopy is diverse and contains frequent ash, hawthorn (*Crataegus monogyna*), holly, rowan and sycamore, occasional field maple, gorse, large-leaved lime, pedunculate oak, sessile oak and sweet chestnut. The ground flora contains frequent bluebell and cock's-foot, common nettle, common ivy, creeping buttercup, wood avens, smooth lady's mantle and occasional bramble herb Robert, common dog-violet (*Viola riviniana*), dewberry (*Rubus caesius*), red campion, wood sorrel, sanicle and lady fern (*Athyrium filix femina*). The ancient woodland indicators in the ground flora suggests that this area may have been continuously wooded for an extended period.

Other Woodland; Mixed; Mainly Conifer (w1h6)

- 3.1.3.6 Areas of other woodland; mixed; mainly coniferous woodland are present within the HSA (TN15 and 16). These woodlands are predominantly composed of conifers. The canopy of these woodland contains abundant Scot's pine (*Pinus sylvestris*), frequent larch (*Larix sp.*) and occasional beech, sycamore, holly, ash, rowan, and sessile oak (*Quercus petraea*). The broadleaved species are generally young trees and appear to have been planted. The understory is sparse, with ground flora generally restricted to woodland edges, with abundant common nettle, false oat-grass, and Yorkshire-fog, frequent cleavers (*Galium aparine*) and creeping thistle, and occasional red campion all recorded.

Felled Woodland (w206)

- 3.1.3.7 An area of felled woodland is present in the HSA (TN17). This area has been colonised by grasses, with abundant tufted hair-grass (*Deschampsia cespitosa*) and Yorkshire-fog, as well as frequent cock's-foot. Typical woodland ground flora species such as foxglove (*Digitalis purpurea*) and red campion are frequent, while self-seeding saplings were also recorded in the form of with frequent elder (*Sambucus nigra*), occasional beech and sycamore, suggesting some natural regeneration.

3.1.4 Heathland and Scrub

Native Hedgerow (h2a)

- 3.1.4.1 Native hedgerows are present throughout the HSA (TN18-30). Most hedgerows are dominated by hawthorn (TN18-29). Though other species are present within the hedgerows, including elder, dog-rose, bramble, gorse, cherry, ash, and rowan. A gorse hedgerow is also presents on the north of the HSA (TN30). The hedgerow verges comprise mainly of ruderal species such as common nettle, creeping thistle, false oatgrass, perennial rye-grass, Yorkshire-fog, dock, and cleavers. In some cases, woodland plants are present in the verges including cow parsley, red campion, and meadow grass. Other species present within the verges include bracken, cock's-foot, creeping buttercup, broom, vetch, yarrow, ribwort plantain, common knapweed, hedge mustard, pineapple weed, hogweed, and prickly sow thistle.

Non-native and Ornamental Hedgerow (h2b)

- 3.1.4.2 A non-native and ornamental species is present in the centre of the site (TN31), which contains abundant Leyland cypress (*Cupressus x leylandii*) and frequent sycamore. The ground flora within the hedgerow verge contains abundant common ivy and frequent red campion .

Gorse Scrub (h3e)

- 3.1.4.3 An area of dense gorse scrub with scattered trees was present on the northwest of the HSA (TN32). The canopy was dominated by gorse , which was abundant, along with frequent hawthorn and elder. The ground flora was rich in ruderal species, with abundant bracken (*Pteridium aquilinum*), cock's-foot false oat-grass, perennial rye-grass and Yorkshire-fog. Dewberry (*Rubus caesius*) was frequent, while soft rush was locally frequent.

3.1.5 Cropland

- 3.1.5.1 Most of the site comprised of various types of cropland. Small strips of grassland are present along fields throughout the HSA (TN33-36). These, however, were not considered to fall within the UKHab definition of arable field margins as they did not appear to be managed for the benefit of wildlife. These strips of grassland contained a variety of herbaceous species, with a strong presence of grasses and ruderal plants, including, abundant meadow grass, false oat-grass, perennial rye-grass, Yorkshire-fog common nettle and creeping thistle. Daisy (*Bellis perennis*), dandelion, dock, ragwort, and white clover were frequent within the sward. Other species recorded included mouse-ear (*Cerastium fontanum*), pineappleweed, creeping buttercup, prickly sowthistle, fumitory (*Fumaria sp.*), bramble, and scentless mayweed.

Winter Stubble (c1c5)

- 3.1.5.2 Some arable fields had recently been harvested, and as such are classified as winter stubble (TN37).

Non-cereal Crops (c1c)

- 3.1.5.3 Most of the Site contains arable fields planted with non- cereal crops(TN38).

3.1.6 Urban

Buildings (u1b5)

- 3.1.6.1 A small, fabricated, metal single story substation was present on the north of HSA (TN39).

Built Linear Features (u1e)

- 3.1.6.2 The Site contains numerous built linear features in the form of tarmacked country roads (TN40).

3.1.7 Rivers and Lakes

Other Rivers and Streams (r2b)

- 3.1.7.1 A small stream is present which runs west to east across the Site (TN41-44). Aquatic flora includes locally abundant water mint (*Mentha aquatica*) and duckweed (*Lemna minor*), with occasional water-starwort (*Callitriche sp.*).
- 3.1.7.2 On the margins common nettle, rosebay, creeping thistle, and great willowherb was locally abundant. frequent or locally frequent species included bedstraw, bracken, bramble, cleavers, dock, false oat grass and common knapweed. Occasional herb species included colt's foot, creeping buttercup, marsh thistle, red campion and soft rush.
- 3.1.7.3 Scattered trees and scrub were also present along the margins including goat willow, five white willows (*Salix alba*), beech gorse, and ash.
- 3.1.7.4 A ditch was present on site along the woodland edge (TN45). It was dry at the time of the survey but based on the species present which included hard rush (*Juncus inflexus*), reed canary-grass (*Phalaris arundinacea*), soft rush , Woodrush (*Luzula sp.*), tufted hair-grass, Yorkshire-fog.
- 3.1.7.5 Ditches were also present going through the *Holcus-Juncus* (TN2-3) and along hedgerows (TN18, 27 and 29) as described above.

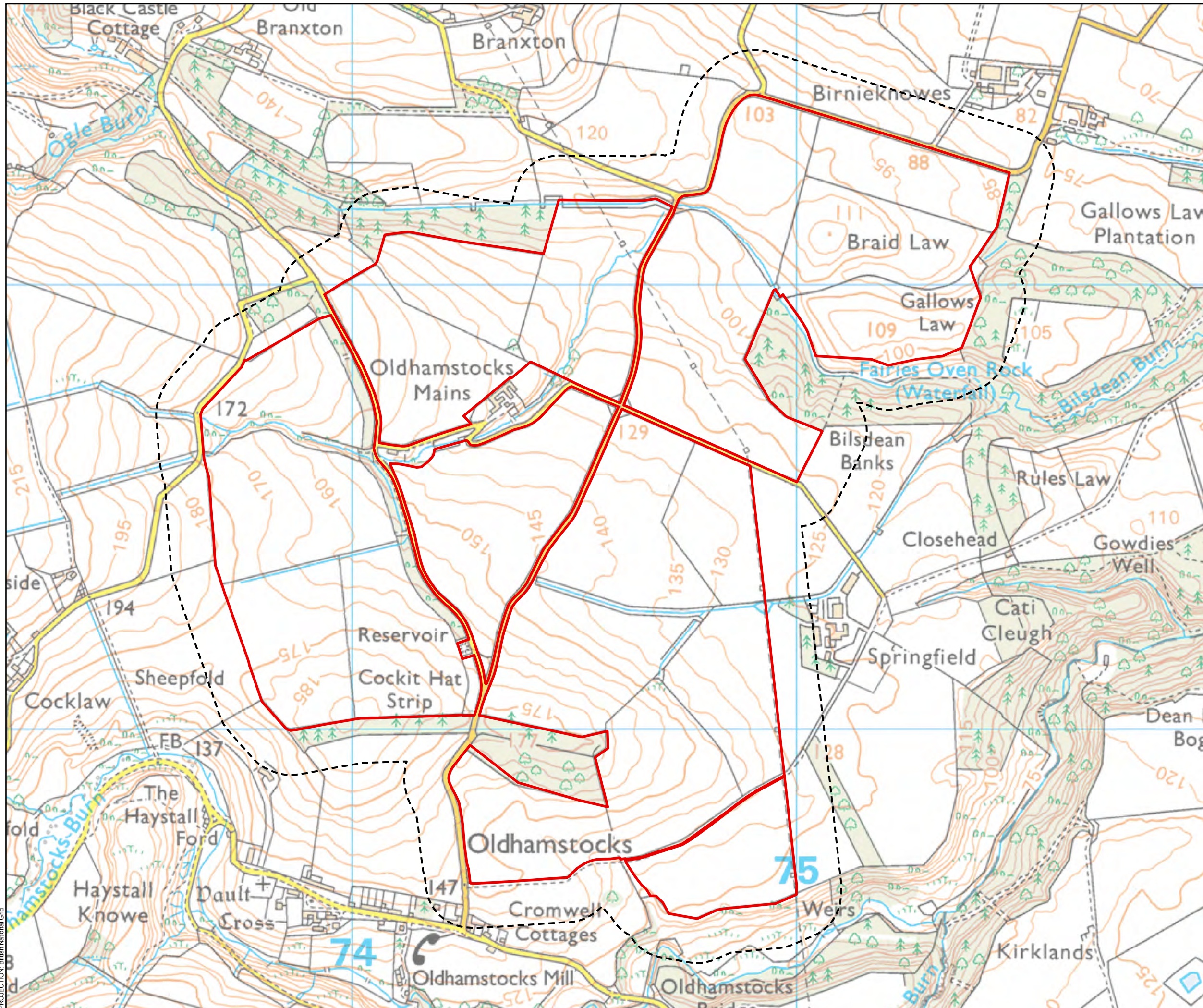
4 SUMMARY OF BOTANICAL INTEREST

4.1.1.1 **Table 4.1**, below, provides a summary of the habitat communities recorded on site, and whether these Habitats of Principal Importance (HPI) listed on the Scottish Biodiversity List (SBL) and the potential to be Ground Water Dependent Terrestrial Ecosystems (GWDTE). Impact Assessment and Mitigation are discussed on **Chapter 8** of the EIAR.

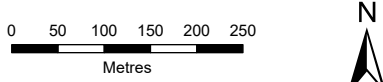
TABLE 4.1 SUMMARY OF UKHAB COMMUNITIES AND SENSITIVITIES ON SITE

UK HAB COMMUNITY	SBL	GWDTE
Other neutral grassland		Low
Holcus-Juncus grassland		Low
Modified grassland		Low
Other lowland mixed deciduous woodland	✓	Low
Native hedgerow	✓	Low
Non-native and Ornamental Hedgerow		Low
Gorse scrub		Low
Cereal crops		Low
Winter stubble		Low
Non-cereal crops		Low
Buildings		Low
Built linear features		Low
Other Rivers and Streams		Low

APPENDIX A FIGURES



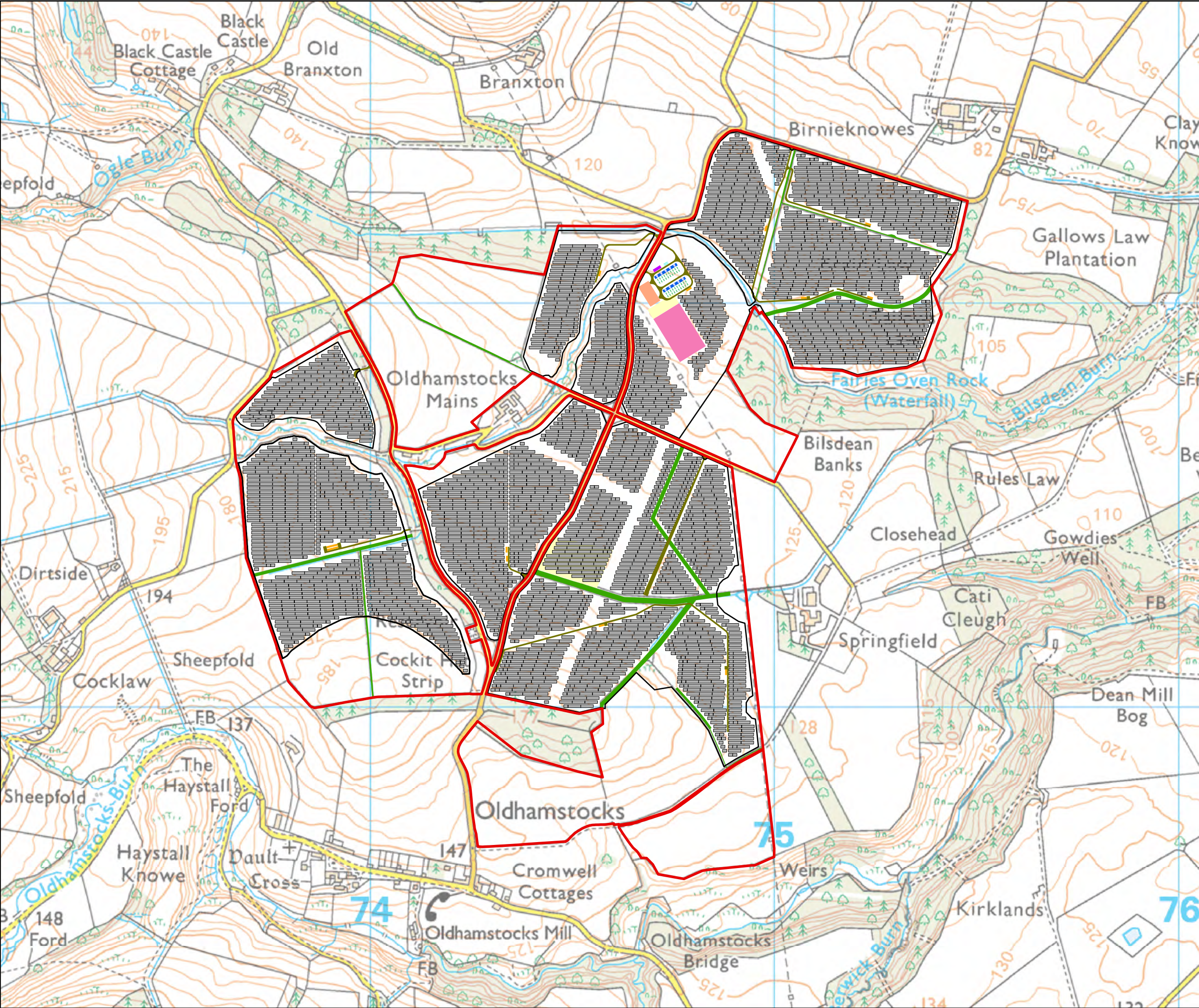
Site Boundary
100 m Buffer



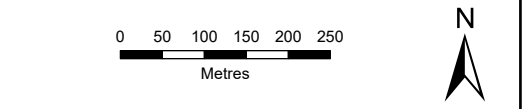
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PROJECT: 0733745	CHECKED: MW
DATE: 13/03/2025	APPROVED: RO

**Springfield Solar Farm and BESS
Habitat Technical Appendix
Figure 8.1.1
Site Boundary**





- Site Boundary
- Proposed Site Layout
 - BESS
 - Temporary Construction Compound
 - OM Building
 - TSO Substation
 - Customer Substation
 - PV Module
 - Transformers
 - Hedgerow
 - Internal Access Track
 - Power Conversion
 - Storage Container
 - Tesla Megapack
 - Fence

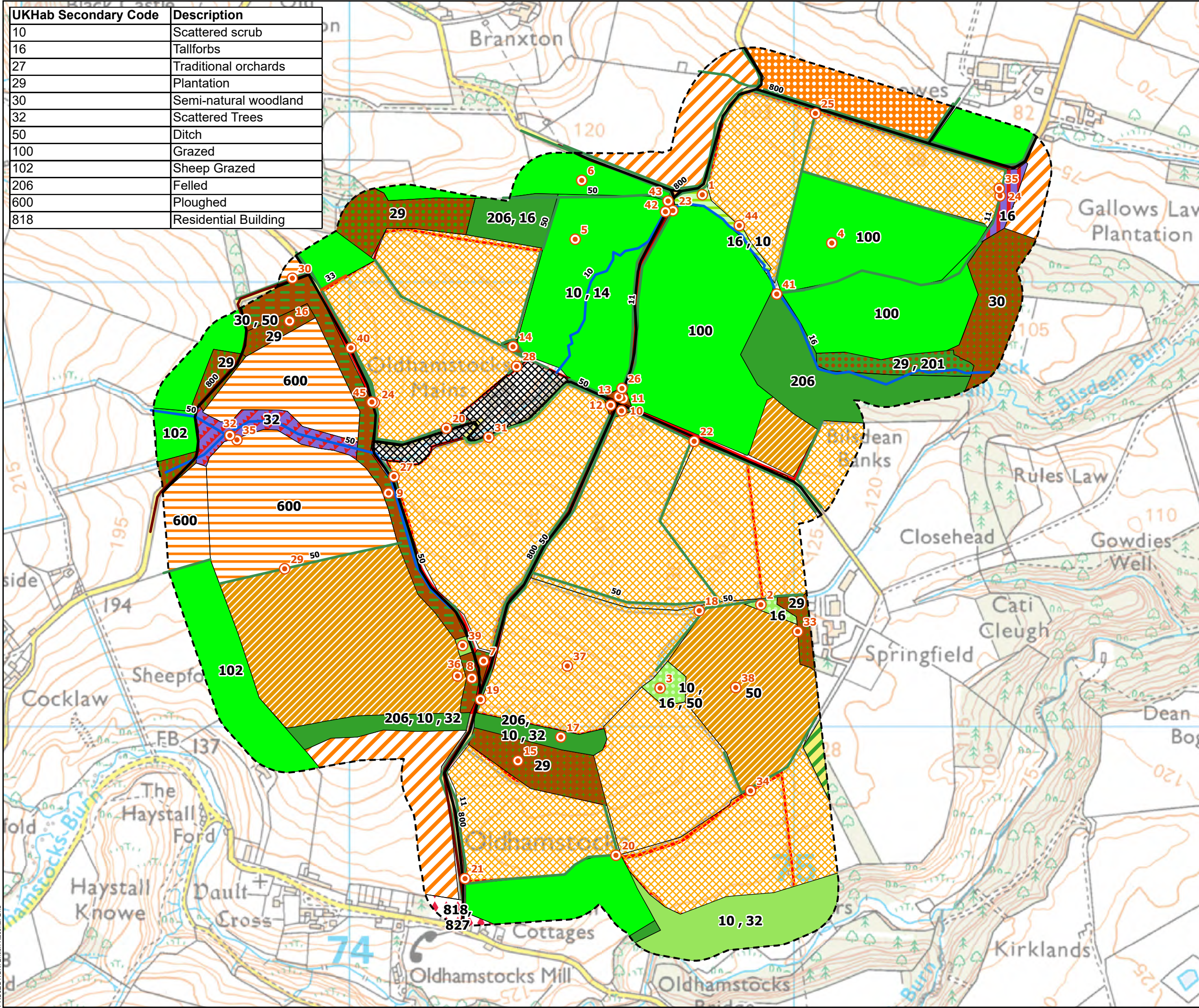


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DATE: 5/30/2025	APPROVED: RO

**Springfield Solar Farm and BESS
Habitat Technical Appendix
Figure 8.1.2
Development Layout**



UKHab Secondary Code	Description
10	Scattered scrub
16	Tallforbs
27	Traditional orchards
29	Plantation
30	Semi-natural woodland
32	Scattered Trees
50	Ditch
100	Grazed
102	Sheep Grazed
206	Felled
600	Ploughed
818	Residential Building



- Site Boundary

100 m Buffer

Target Note

No Access
- UK Habitat - Lines

h2a - Native hedgerow

h2b - Non-native and ornamental hedgerow

r2b - Other rivers and streams

u1b - Developed land; sealed surface

u1e - Built linear features

w1g - Other broadleaved woodland
- UK Habitat - Polygons

c1 - arable and horticulture

c1c - cereal crops

c1d - non-cereal crops

c1c5 - winter stubble

c1d - non-cereal crops

g - grassland

g3c - other neutral grassland

g3c8 - Holcus-Juncus neutral grassland

g4 - modified grassland

h3e - gorse scrub

h3h - mixed scrub

u1b5 - buildings

u1d - suburban mosaic of developed/natural surfaces

w - woodland

w1f7 - other lowland mixed deciduous woodland

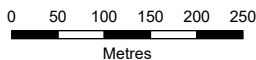
w1g - other woodland, broadleaved

w1h - other woodland, mixed

w1h5 - other woodland, mixed, mainly broadleaved

w1h6 - other woodland, mixed, mainly conifer

w2 - coniferous woodland




SCALE: See Scale Bar	VERSION: A01
SIZE: A3	DRAWN: RW
PROJECT: 0733745	CHECKED: MW
DATE: 13/03/2025	APPROVED: RO

Springfield Solar Farm and BESS
Habitat Technical Appendix
Figure 8.1.3
UKHab Plan



APPENDIX B TARGET NOTES

TARGET NOTE	PHOTOGRAPH
<p>TN1 - Other Neutral Grassland Unmanaged grassland that contains the following species</p> <ul style="list-style-type: none"> • Bedstraw (<i>Galium sp.</i>) • Cock's-foot (<i>Dactylis glomerata</i>) • Common knapweed (<i>Centaurea nigra</i>) • Creeping thistle (<i>Cirsium arvense</i>) • Dock (<i>Rumex sp.</i>) • False oatgrass (<i>Arrhenatherum elatius</i>) • Goat willow (<i>Salix caprea</i>) • Hedge mustard (<i>Sisymbrium officinale</i>) • Hogweed (<i>Heracleum sphondylium</i>) • Marsh thistle (<i>Cirsium palustre</i>) • Ragwort (<i>Jacobaea vulgaris</i>) • Scentless mayweed (<i>Tripleurospermum inodorum</i>) • Vetch (<i>Vicia sp.</i>) • Yarrow (<i>Achillea millefolium</i>) • Yorkshire fog (<i>Holcus lanatus</i>) 	 <p>The photograph shows a wide, open grassy field with a mix of green and yellowish-brown vegetation, suggesting a natural or semi-natural grassland. In the background, a tall electricity pylon stands against a cloudy sky. The field is bordered by a line of trees and shrubs, and the overall scene is typical of a rural landscape.</p>

TARGET NOTE

TN2 - Holcus-Juncus neutral grassland

The area was located on the southeast corner of the site adjacent to a ditch. A large portion of it was marshy and contained rushes and sedges. Drier sections were present on a higher ground, had been colonized by tall ruderal species.

- | | |
|---|------------------|
| • Bottle sedge (<i>Carex rostrata</i>) | Locally frequent |
| • Common nettle (<i>Urtica dioica</i>) | Locally abundant |
| • Creeping buttercup (<i>Ranunculus repens</i>) | Frequent |
| • Creeping thistle (<i>Cirsium arvense</i>) | Locally abundant |
| • Dock (<i>Rumex sp.</i>) | Locally abundant |
| • False oatgrass (<i>Arrhenatherum elatius</i>) | Frequent |
| • Great willowherb (<i>Epilobium hirsutum</i>) | Locally abundant |
| • Marsh thistle (<i>Cirsium palustre</i>) | Occasional |
| • Perennial ryegrass (<i>Lolium perenne</i>) | Frequent |
| • Soft rush (<i>Juncus effusus</i>) | Locally abundant |
| • Timothy (<i>Phleum pratense</i>) | Frequent |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Abundant |

PHOTOGRAPH



TARGET NOTE

TN3 - Holcus-Juncus neutral grassland

The area was further south but uphill from TN2. Two ditches went through the area which ultimately connected to the ditch that borders TN2 downstream. The habitat here was a mixture hydrophilic species and tall ruderal species. Occasional hawthorn scrub was also present.

- | | |
|--|------------|
| • Cock's-foot (<i>Dactylis glomerata</i>) | Frequent |
| • Common bird's-foot trefoil (<i>Lotus corniculatus</i>) | Occasional |
| • Common nettle (<i>Urtica dioica</i>) | Abundant |
| • Cow parsley (<i>Anthriscus sylvestris</i>) | Occasional |
| • Creeping buttercup (<i>Ranunculus repens</i>) | Frequent |
| • Dog rose (<i>Rosa canina</i>) | Occasional |
| • Dock (<i>Rumex sp.</i>) | Frequent |
| • False oatgrass (<i>Arrhenatherum elatius</i>) | Abundant |
| • Hawthorn (<i>Crataegus monogyna</i>) | Occasional |
| • Horsetail (<i>Equisetum sp.</i>) | Occasional |
| • Marsh Woundwort (<i>Stachys palustris</i>) | Frequent |
| • Ragwort (<i>Jacobaea vulgaris</i>) | Occasional |
| • Soft rush (<i>Juncus effusus</i>) | Frequent |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Abundant |

PHOTOGRAPH



TARGET NOTE

TN4 – Modified grassland

Large pastures on the north of the site grazed by sheep.

- | | |
|---|------------------|
| • Bent (<i>Agrostis sp.</i>) | Occasional |
| • Common mouse-ear (<i>Cerastium fontanum</i>) | Occasional |
| • Creeping buttercup (<i>Ranunculus repens</i>) | Occasional |
| • Crested dog's tail (<i>Cynosurus cristatus</i>) | Occasional |
| • Dandelion (<i>Taraxacum agg.</i>) | Occasional |
| • Meadow grass (<i>Poa sp.</i>) | Occasional |
| • Perennial ryegrass (<i>Lolium perenne</i>) | Abundant |
| • Timothy (<i>Phleum pratense</i>) | Locally Frequent |
| • White clover (<i>Trifolium repens</i>) | Frequent |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Locally Frequent |

PHOTOGRAPH



TN5 – Modified grassland

A small stream was present on the bottom of the field. Gorse scrub, soft rush and creeping thistles were present along the edge of the stream.

- | | |
|---|------------------|
| • Common mouse-ear (<i>Cerastium fontanum</i>) | Frequent |
| • Crested dog's tail (<i>Cynosurus cristatus</i>) | Locally frequent |
| • Creeping thistle (<i>Cirsium arvense</i>) | Locally frequent |
| • Hawkbit (<i>Leontodon sp.</i>) | Occasional |
| • Perennial ryegrass (<i>Lolium perenne</i>) | Abundant |
| • Soft rush (<i>Juncus effusus</i>) | Locally frequent |
| • Spear thistle (<i>Cirsium vulgare</i>) | Occasional |
| • White clover (<i>Trifolium repens</i>) | Frequent |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Abundant |



TARGET NOTE

TN6 – Modified grassland
Pastures on the north of the HSA grazed by sheep.

- | | |
|---|------------|
| • Creeping buttercup (<i>Ranunculus repens</i>) | Frequent |
| • Creeping thistle (<i>Cirsium arvense</i>) | Occasional |
| • Dock (<i>Rumex sp.</i>) | Occasional |
| • Meadow grass (<i>Poa sp.</i>) | Frequent |
| • Perennial ryegrass (<i>Lolium perenne</i>) | Abundant |
| • Pineapple weed (<i>Matricaria discoidea</i>) | Frequent |
| • White clover (<i>Trifolium repens</i>) | Frequent |

PHOTOGRAPH



TARGET NOTE

TN7 – Lowland mixed deciduous woodland

Lowland mixed deciduous woodland with ancient woodland indicators present on the ground flora suggesting that it may have been continuously wooded for an extended period.

Canopy

• Ash (<i>Fraxinus excelsior</i>)	Abundant
• Beech (<i>Fagus sylvatica</i>)	Frequent
• Hawthorn (<i>Crataegus monogyna</i>)	Occasional
• Holly (<i>Ilex aquifolium</i>)	Frequent
• Pedunculate oak (<i>Quercus robur</i>)	Abundant
• Sessile oak (<i>Quercus petraea</i>)	Occasional
• Sweet chestnut (<i>Castanea sativa</i>)	Frequent
• Sycamore (<i>Acer pseudoplatanus</i>)	Frequent
• Wych elm <i>Ulmus glabra</i>)	Occasional

Ground flora

• Bluebell (<i>Hyacinthoides non-scripta</i>)	Abundant
• Cock's-foot (<i>Dactylis glomerata</i>)	Frequent
• Common dog-violet (<i>Viola riviniana</i>)	Frequent
• Common ivy (<i>Hedera helix</i>)	Frequent
• Herb Robert (<i>Geranium robertianum</i>)	Frequent
• Wavy hair-grass (<i>Avenella flexuosa</i>)	Frequent
• Wood sorrel (<i>Oxalis acetosella</i>)	Frequent
• Woodrush (<i>Luzula sp.</i>)	Occasional

PHOTOGRAPH



TARGET NOTE

TN8 – Lowland mixed deciduous woodland

Canopy

- | | |
|---|------------|
| • Ash (<i>Fraxinus excelsior</i>) | Abundant |
| • Beech (<i>Fagus sylvatica</i>) | Frequent |
| • Gorse (<i>Ulex europaeus</i>) | Occasional |
| • Hawthorn (<i>Crataegus monogyna</i>) | Occasional |
| • Holly (<i>Ilex aquifolium</i>) | Frequent |
| • Pedunculate oak (<i>Quercus robur</i>) | Frequent |
| • Rowan (<i>Sorbus aucuparia</i>) | Frequent |
| • Sessile oak (<i>Quercus petraea</i>) | Occasional |
| • Sweet chestnut (<i>Castanea sativa</i>) | Frequent |
| • Sycamore (<i>Acer pseudoplatanus</i>) | Frequent |
| • Wych elm (<i>Ulmus glabra</i>) | Occasional |

Ground flora

- | | |
|---|------------------|
| • Bluebell (<i>Hyacinthoides non-scripta</i>) | Abundant |
| • Cock's-foot (<i>Dactylis glomerata</i>) | Frequent |
| • Common dog-violet (<i>Viola riviniana</i>) | Frequent |
| • Common ivy (<i>Hedera helix</i>) | Frequent |
| • Common nettle (<i>Urtica dioica</i>) | Frequent |
| • Herb Robert (<i>Geranium robertianum</i>) | Frequent |
| • Soft rush (<i>Juncus effusus</i>) | Locally frequent |
| • Wavy hair-grass (<i>Avenella flexuosa</i>) | Frequent |
| • Wood avens (<i>Geum urbanum</i>) | Frequent |
| • Wood sorrel (<i>Oxalis acetosella</i>) | Frequent |
| • Woodrush (<i>Luzula sp.</i>) | Occasional |

PHOTOGRAPH



TARGET NOTE

TN9 - Lowland mixed deciduous woodland

Canopy

- | | |
|---|------------|
| • Ash (<i>Fraxinus excelsior</i>) | Frequent |
| • Field maple (<i>Acer campestre</i>) | Occasional |
| • Gorse (<i>Ulex europaeus</i>) | Occasional |
| • Hawthorn (<i>Crataegus monogyna</i>) | Frequent |
| • Holly (<i>Ilex aquifolium</i>) | Frequent |
| • Honeysuckle (<i>Lonicera periclymenum</i>) | Occasional |
| • Large-leaved lime (<i>Tilia platyphyllos</i>) | Occasional |
| • Pedunculate oak (<i>Quercus robur</i>) | Occasional |
| • Rowan (<i>Sorbus aucuparia</i>) | Frequent |
| • Sessile oak (<i>Quercus petraea</i>) | Occasional |
| • Sweet chestnut (<i>Castanea sativa</i>) | Occasional |
| • Sycamore (<i>Acer pseudoplatanus</i>) | Frequent |

Ground flora

- | | |
|--|------------------|
| • Bluebell (<i>Hyacinthoides non-scripta</i>) | Locally abundant |
| • Cock's-foot (<i>Dactylis glomerata</i>) | Abundant |
| • Common dog-violet (<i>Viola riviniana</i>) | Occasional |
| • Common ivy (<i>Hedera helix</i>) | Frequent |
| • Creeping buttercup (<i>Ranunculus repens</i>) | Frequent |
| • Dewberry (<i>Rubus caesius</i>) | Occasional |
| • Herb Robert (<i>Geranium robertianum</i>) | Frequent |
| • Lady fern (<i>Athyrium filix-femina</i>) | Occasional |
| • Red campion (<i>Silene dioica</i>) | Occasional |
| • Sanicle (<i>Sanicula europaea</i>) | Occasional |
| • Smooth lady's mantle
(<i>Alchemilla glabra</i>) | Frequent |
| • Wood avens (<i>Geum urbanum</i>) | Frequent |
| • Wood sorrel (<i>Oxalis acetosella</i>) | Occasional |

PHOTOGRAPH



TARGET NOTE

TN10 – Lowland mixed deciduous woodland
Small coppice of woods by the crossroads

Canopy

- | | |
|---|------------|
| • Ash (<i>Fraxinus excelsior</i>) | Occasional |
| • Beech (<i>Fagus sylvatica</i>) | Occasional |
| • Hawthorn (<i>Crataegus monogyna</i>) | Frequent |
| • Holly (<i>Ilex aquifolium</i>) | Abundant |
| • Gorse (<i>Ulex europaeus</i>) | Occasional |
| • Sycamore (<i>Acer pseudoplatanus</i>) | Frequent |
| • Wych elm (<i>Ulmus glabra</i>) | Frequent |

Ground flora

- | | |
|---|------------|
| • Bedstraw (<i>Galium sp.</i>) | Frequent |
| • Bracken (<i>Pteridium aquilinum</i>) | Frequent |
| • Bramble (<i>Rubus fruticosus agg.</i>) | Frequent |
| • Cock's-foot (<i>Dactylis glomerata</i>) | Abundant |
| • Common ivy (<i>Hedera helix</i>) | Frequent |
| • Common nettle (<i>Urtica dioica</i>) | Frequent |
| • Herb Robert (<i>Geranium robertianum</i>) | Frequent |
| • Common Hogweed (<i>Heracleum sphondylium</i>) | Frequent |
| • Meadow grass (<i>Poa sp.</i>) | Frequent |
| • Vetch (<i>Vicia sp.</i>) | Occasional |

PHOTOGRAPH



TARGET NOTE

TN11 – Lowland mixed deciduous woodland
Small coppice of woods by the crossroads

Canopy

- | | |
|---|------------|
| • Alder (<i>Alnus glutinosa</i>) | Occasional |
| • Ash (<i>Fraxinus excelsior</i>) | Frequent |
| • Beech (<i>Fagus sylvatica</i>) | Frequent |
| • Hawthorn (<i>Crataegus monogyna</i>) | Frequent |
| • Holly (<i>Ilex aquifolium</i>) | Occasional |
| • Sweet chestnut (<i>Castanea sativa</i>) | Occasional |
| • Wych elm (<i>Ulmus glabra</i>) | Frequent |

Ground flora

- | | |
|--|------------------|
| • Bracken (<i>Pteridium aquilinum</i>) | Frequent |
| • Bramble (<i>Rubus fruticosus</i>) | Frequent |
| • Common knapweed (<i>Centaurea nigra</i>) | Frequent |
| • Creeping thistle (<i>Cirsium arvense</i>) | Frequent |
| • Dock (<i>Rumex sp.</i>) | Occasional |
| • False oat-grass (<i>Arrhenatherum elatius</i>) | Frequent |
| • Herb Robert (<i>Geranium robertianum</i>) | Occasional |
| • Meadow grass (<i>Poa sp.</i>) | Frequent |
| • Red campion (<i>Silene dioica</i>) | Frequent |
| • Wood avens (<i>Geum urbanum</i>) | Locally frequent |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Abundant |

PHOTOGRAPH



TARGET NOTE

TN12 – Lowland mixed deciduous woodland
Small coppice of woods by the crossroads

Canopy

- | | |
|---|----------|
| • Ash (<i>Fraxinus excelsior</i>) | Frequent |
| • Beech (<i>Fagus sylvatica</i>) | Frequent |
| • Dog-rose (<i>Rosa canina</i>) | Frequent |
| • Hawthorn (<i>Crataegus monogyna</i>) | Frequent |
| • Holly (<i>Ilex aquifolium</i>) | Frequent |
| • Sycamore (<i>Acer pseudoplatanus</i>) | Frequent |
| • Wych elm (<i>Ulmus glabra</i>) | Frequent |

Ground flora

- | | |
|---|------------|
| • Bramble (<i>Rubus fruticosus</i>) | Frequent |
| • Cock's-foot (<i>Dactylis glomerata</i>) | Abundant |
| • Common ivy (<i>Hedera helix</i>) | Frequent |
| • Common nettle (<i>Urtica dioica</i>) | Abundant |
| • Creeping thistle (<i>Cirsium arvense</i>) | Frequent |
| • Dock (<i>Rumex sp.</i>) | Frequent |
| • Herb Robert (<i>Geranium robertianum</i>) | Frequent |
| • Prickly sowthistle (<i>Sonchus asper</i>) | Occasional |
| • Red campion (<i>Silene dioica</i>) | Occasional |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Abundant |

PHOTOGRAPH



TARGET NOTE

TN13 – Lowland mixed deciduous woodland
Small coppice of woods by the crossroads

Canopy

- | | |
|--|------------|
| • Ash (<i>Fraxinus excelsior</i>) | Occasional |
| • Hawthorn (<i>Crataegus monogyna</i>) | Occasional |
| • Pedunculate oak (<i>Quercus robur</i>) | Frequent |
| • Sycamore (<i>Acer pseudoplatanus</i>) | Frequent |
| • Wych elm (<i>Ulmus glabra</i>) | Frequent |

Ground flora

- | | |
|---|----------|
| • Bracken (<i>Pteridium aquilinum</i>) | Frequent |
| • Bramble (<i>Rubus fruticosus</i> agg.) | Frequent |
| • Cock's-foot (<i>Dactylis glomerata</i>) | Abundant |
| • Creeping thistle (<i>Cirsium arvense</i>) | Frequent |
| • Red campion (<i>Silene dioica</i>) | Abundant |
| • Ribwort plantain (<i>Plantago lanceolata</i>) | Frequent |

PHOTOGRAPH



TARGET NOTE

TN14 – Lowland mixed deciduous woodland
Small coppice of woods within between fields

Canopy

- Ash (*Fraxinus excelsior*) Frequent
- Beech (*Fagus sylvatica*) Frequent
- Sycamore (*Acer pseudoplatanus*) Frequent
- Wych elm (*Ulmus glabra*) Frequent

Ground flora

- Bramble (*Rubus fruticosus* agg.) Occasional
- Cock's-foot (*Dactylis glomerata*) Abundant
- Common ivy (*Hedera helix*) Abundant
- Common nettle (*Urtica dioica*) Frequent
- Herb Robert (*Geranium robertianum*) Occasional

PHOTOGRAPH



TARGET NOTE

TN15 - Other woodland; mixed; mainly conifer

Plantation woodland, mainly conifer but a few broadleaved species have been planted more recently.

Canopy

- | | |
|---|------------|
| • Beech (<i>Fagus sylvatica</i>) | Occasional |
| • Larch (<i>Larix sp.</i>) | Frequent |
| • Rowan (<i>Sorbus aucuparia</i>) | Frequent |
| • Scot's pine (<i>Pinus sylvestris</i>) | Abundant |
| • Sycamore (<i>Acer pseudoplatanus</i>) | Occasional |

Mostly no ground flora except on the outside:

- | | |
|--|------------------|
| • Cleavers (<i>Galium aparine</i>) | Locally frequent |
| • Common nettle (<i>Urtica dioica</i>) | Locally abundant |
| • Creeping thistle (<i>Cirsium arvense</i>) | Locally frequent |
| • False oat-grass (<i>Arrhenatherum elatius</i>) | Locally abundant |
| • Red campion (<i>Silene dioica</i>) | Occasional |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Locally abundant |

PHOTOGRAPH



TARGET NOTE

TN16 - Other woodland; mixed; mainly conifer

Plantation woodland, mainly conifer but a few broadleaved species have been planted more recently.

- | | |
|---|------------|
| • Ash (<i>Fraxinus excelsior</i>) | Occasional |
| • Holly (<i>Ilex aquifolium</i>) | Occasional |
| • Larch (<i>Larix sp.</i>) | Frequent |
| • Rowan (<i>Sorbus aucuparia</i>) | Occasional |
| • Scot's pine (<i>Pinus sylvestris</i>) | Abundant |
| • Sessile oak (<i>Quercus petraea</i>) | Occasional |

PHOTOGRAPH



TN 17 – Felled woodland

Area of felled woodland colonised by grasses. The vegetation present also included typical woodland ground flora species and self-seeded saplings

- | | |
|--|------------|
| • Beech (<i>Fagus sylvatica</i>) | Occasional |
| • Cock's-foot (<i>Dactylis glomerata</i>) | Frequent |
| • Elder (<i>Sambucus nigra</i>) | Frequent |
| • Foxglove (<i>Digitalis purpurea</i>) | Frequent |
| • Red campion (<i>Silene dioica</i>) | Frequent |
| • Sycamore (<i>Acer pseudoplatanus</i>) | Occasional |
| • Tufted hair-grass (<i>Deschampsia cespitosa</i>) | Abundant |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Abundant |



TARGET NOTE

TN18 – Native Hawthorn Hedgerow

The Hedgerow was approximately 1.5m high and 1m wide with some gaps along its length and a large gap for a gate. The ditch connecting TN2 to TN3 was present along this hedgerow.

Canopy


- | | |
|---|------------|
| • Bramble (<i>Rubus fruticosus</i> agg.) | Frequent |
| • Elder (<i>Sambucus nigra</i>) | Occasional |
| • Hawthorn (<i>Crataegus monogyna</i>) | Abundant |
| • Holly (<i>Ilex aquifolium</i>) | Occasional |
| • Dog-rose (<i>Rosa canina</i>) | Occasional |


Ground flora

- | | |
|--|------------------|
| • Bracken (<i>Pteridium aquilinum</i>) | Occasional |
| • Broom (<i>Cytisus scoparius</i>) | Occasional |
| • Cleavers (<i>Galium aparine</i>) | Occasional |
| • Cock's-foot (<i>Dactylis glomerata</i>) | Occasional |
| • Common nettle (<i>Urtica dioica</i>) | Frequent |
| • Cow parsley (<i>Anthriscus sylvestris</i>) | Occasional |
| • Creeping buttercup (<i>Ranunculus repens</i>) | Occasional |
| • Creeping thistle (<i>Cirsium arvense</i>) | Frequent |
| • Dock (<i>Rumex</i> sp.) | Occasional |
| • False oat-grass (<i>Arrhenatherum elatius</i>) | Abundant |
| • Pineappleweed (<i>Matricaria discoidea</i>) | Occasional |
| • Red campion (<i>Silene dioica</i>) | Locally frequent |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Abundant |

PHOTOGRAPH



TARGET NOTE	PHOTOGRAPH
<p>TN19 – Native Hawthorn Hedgerow The Hedgerow was approximately 2m high and 1m wide. The hedgerow looks to have been layed previously. A ditch was present along this hedgerow.</p> <p><u>Canopy</u></p> <ul style="list-style-type: none"> • Bramble (<i>Rubus fruticosus agg.</i>) Frequent • Elder (<i>Sambucus nigra</i>) Occasional • Gorse (<i>Ulex europaeus</i>) Occasional • Hawthorn (<i>Crataegus monogyna</i>) Abundant • Dog-rose (<i>Rosa canina</i>) Occasional <p><u>Ground flora</u></p> <ul style="list-style-type: none"> • Cock’s-foot (<i>Dactylis glomerata</i>) Occasional • Creeping thistle (<i>Cirsium arvense</i>) Abundant • False oat-grass (<i>Arrhenatherum elatius</i>) Abundant • Hedge mustard (<i>Sisymbrium officinale</i>) Occasional • Perennial rye-grass (<i>Lolium perenne</i>) Frequent • Red campion (<i>Silene dioica</i>) Occasional 	

TARGET NOTE	PHOTOGRAPH
<p>TN20 - Native Hawthorn Hedgerow The Hedgerow was approximately 2m high and 1m wide. The hedgerow looks to have been layed previously but was also partially defunct with large gaps present.</p> <p><u>Canopy</u></p> <ul style="list-style-type: none"> Elder (<i>Sambucus nigra</i>) Occasional Hawthorn (<i>Crataegus monogyna</i>) Abundant <p><u>Ground flora</u></p> <ul style="list-style-type: none"> Common nettle (<i>Urtica dioica</i>) Abundant Creeping thistle (<i>Cirsium arvense</i>) Frequent False oat-grass (<i>Arrhenatherum elatius</i>) Abundant Hedge mustard (<i>Sisymbrium officinale</i>) Occasional Perennial rye-grass (<i>Lolium perenne</i>) Abundant Yorkshire-fog (<i>Holcus lanatus</i>) Abundant 	

TARGET NOTE

TN21 – Native Hedgerow

Hedgerow with trees including a veteran tree. It was approximately 2m high on average and 1m wide with big gaps in places.

Canopy

- | | |
|---|------------|
| • Bramble (<i>Rubus fruticosus</i> agg.) | Occasional |
| • Elder (<i>Sambucus nigra</i>) | Frequent |
| • Broom (<i>Cytisus scoparius</i>) | Occasional |
| • Cherry (<i>Prunus</i> sp.) | Occasional |
| • Hawthorn (<i>Crataegus monogyna</i>) | Abundant |
| • Gorse (<i>Ulex europaeus</i>) | Occasional |

Ground flora

- | | |
|--|------------|
| • Bramble (<i>Rubus fruticosus</i> agg.) | Frequent |
| • Cleavers (<i>Galium aparine</i>) | Frequent |
| • Cock's-foot (<i>Dactylis glomerata</i>) | Frequent |
| • Common nettle (<i>Urtica dioica</i>) | Abundant |
| • Cow parsley (<i>Anthriscus sylvestris</i>) | Frequent |
| • Creeping thistle (<i>Cirsium arvense</i>) | Abundant |
| • False oat-grass (<i>Arrhenatherum elatius</i>) | Abundant |
| • Foxglove (<i>Digitalis purpurea</i>) | Occasional |
| • Hogweed (<i>Heracleum sphondylium</i>) | Occasional |
| • Perennial rye-grass (<i>Lolium perenne</i>) | Abundant |
| • Prickly sowthistle (<i>Sonchus asper</i>) | Occasional |

PHOTOGRAPH



TARGET NOTE

TN22 -Native Hedgerow

The Hedgerow with trees. It was approximately 2m high on average and 1m wide. The hedgerow looks to have been layed previously but was also partially defunct with large gaps present.

Canopy

- | | |
|--|------------|
| • Hawthorn (<i>Crataegus monogyna</i>) | Abundant |
| • Dog-rose (<i>Rosa canina</i>) | Occasional |

Ground flora

- | | |
|--|------------|
| • Bracken (<i>Pteridium aquilinum</i>) | Occasional |
| • Cleavers (<i>Galium aparine</i>) | Occasional |
| • Cock's-foot (<i>Dactylis glomerata</i>) | Occasional |
| • Common nettle (<i>Urtica dioica</i>) | Frequent |
| • Cow parsley (<i>Anthriscus sylvestris</i>) | Occasional |
| • Creeping buttercup (<i>Ranunculus repens</i>) | Occasional |
| • Creeping thistle (<i>Cirsium arvense</i>) | Frequent |
| • Dock (<i>Rumex sp.</i>) | Occasional |
| • False oat-grass (<i>Arrhenatherum elatius</i>) | Abundant |
| • Hedge mustard (<i>Sisymbrium officinale</i>) | Occasional |
| • Meadow grass (<i>Poa sp.</i>) | Occasional |
| • Meadow vetchling (<i>Lathyrus pratensis</i>) | Rare |
| • Perennial rye-grass (<i>Lolium perenne</i>) | Occasional |
| • Pineappleweed (<i>Matricaria discoidea</i>) | Occasional |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Abundant |

PHOTOGRAPH



TARGET NOTE

TN23 – Native Hawthorn Hedgerow

Hedgerow with trees. It was approximately 2m high and 1m wide. The hedgerow looks to have been layed previously.

Canopy

- | | |
|---|------------|
| • Ash (<i>Fraxinus excelsior</i>) | Occasional |
| • Bramble (<i>Rubus fruticosus</i> agg.) | Frequent |
| • Gorse (<i>Ulex europaeus</i>) | Frequent |
| • Hawthorn (<i>Crataegus monogyna</i>) | Abundant |
| • Dogrose (<i>Rosa canina</i>) | Frequent |

Ground flora

- | | |
|---|----------|
| • Cock's-foot (<i>Dactylis glomerata</i>) | Frequent |
| • Common knapweed (<i>Centaurea nigra</i>) | Frequent |
| • Common nettle (<i>Urtica dioica</i>) | Abundant |
| • Creeping thistle (<i>Cirsium arvense</i>) | Frequent |
| • False oatgrass (<i>Arrhenatherum elatius</i>) | Abundant |
| • Hogweed (<i>Heracleum sphondylium</i>) | Frequent |
| • Meadow grass (<i>Poa</i> sp.) | Frequent |
| • Perennial ryegrass (<i>Lolium perenne</i>) | Abundant |
| • Ribwort plantain (<i>Plantago lanceolata</i>) | Frequent |
| • White clover (<i>Trifolium repens</i>) | Frequent |
| • Yarrow (<i>Achillea millefolium</i>) | Frequent |

PHOTOGRAPH



TARGET NOTE

TN24 – Native Hawthorn Hedgerow
Native hedgerow with large gaps, overgrown and unmanaged. It was approximately 3m tall and 3m wide.

Canopy

- | | |
|---|------------|
| • Ash (<i>Fraxinus excelsior</i>) | Occasional |
| • Cherry (<i>Prunus sp.</i>) | Occasional |
| • Dogrose (<i>Rosa canina</i>) | Occasional |
| • Elder (<i>Sambucus nigra</i>) | Frequent |
| • Hawthorn (<i>Crataegus monogyna</i>) | Frequent |
| • Rowan (<i>Sorbus aucuparia</i>) | Occasional |
| • Sycamore (<i>Acer pseudoplatanus</i>) | Occasional |

Ground flora

- | | |
|---|------------|
| • Bracken (<i>Pteridium aquilinum</i>) | Occasional |
| • Common nettle (<i>Urtica dioica</i>) | Frequent |
| • Creeping thistle (<i>Cirsium arvense</i>) | Frequent |
| • Red campion (<i>Silene dioica</i>) | Occasional |

PHOTOGRAPH



TARGET NOTE

TN25 – Native Hawthorn Hedgerow.
Native hedgerow with large gaps, overgrown and unmanaged. It was approximately 2m tall and 1m wide

Canopy

- | | |
|--|------------|
| • Dogrose (<i>Rosa canina</i>) | Occasional |
| • Elder (<i>Sambucus nigra</i>) | Occasional |
| • Hawthorn (<i>Crataegus monogyna</i>) | Dominant |

Ground flora

- | | |
|---|------------|
| • Bramble (<i>Rubus fruticosus</i>) | Frequent |
| • Cleavers (<i>Galium aparine</i>) | Occasional |
| • Common ivy (<i>Hedera helix</i>) | Frequent |
| • Common nettle (<i>Urtica dioica</i>) | Abundant |
| • False oatgrass (<i>Arrhenatherum elatius</i>) | Abundant |
| • Hedge mustard (<i>Sisymbrium officinale</i>) | Occasional |
| • Perennial ryegrass (<i>Lolium perenne</i>) | Abundant |
| • Red campion (<i>Silene dioica</i>) | Occasional |
| • Spear thistle (<i>Cirsium vulgare</i>) | Occasional |
| • Yarrow (<i>Achillea millefolium</i>) | Occasional |

PHOTOGRAPH



TARGET NOTE

TN26 – Native Hawthorn Hedgerow

Native hedgerow adjacent to woodland. Approximately 2m tall, 1 m wide, previously laid, large gaps between ground and canopy (1m), a few gaps along length of hedge

Canopy

- | | |
|--|------------|
| • Dogrose (<i>Rosa canina</i>) | Occasional |
| • Elder (<i>Sambucus nigra</i>) | Occasional |
| • Gorse (<i>Ulex europaeus</i>) | Occasional |
| • Hawthorn (<i>Crataegus monogyna</i>) | Abundant |
| • Pedunculate oak (<i>Quercus robur</i>) | Occasional |

Ground flora

- | | |
|---|------------|
| • Chickweed (<i>Stellaria media</i>) | Frequent |
| • Common knapweed (<i>Centaurea nigra</i>) | Occasional |
| • Common nettle (<i>Urtica dioica</i>) | Frequent |
| • Dock (<i>Rumex sp.</i>) | Frequent |
| • False oatgrass (<i>Arrhenatherum elatius</i>) | Frequent |
| • Red campion (<i>Silene dioica</i>) | Occasional |
| • Vetch (<i>Vicia sp.</i>) | Occasional |
| • Yarrow (<i>Achillea millefolium</i>) | Occasional |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Abundant |

PHOTOGRAPH



TARGET NOTE

TN27 - Native Hedgerow

Native Hawthorn Hedgerow approximately 2m tall and 1m wide. A few small gaps along length. A ditch runs parallel to it.

Canopy

- | | |
|--|------------|
| • Ash (<i>Fraxinus excelsior</i>) | Frequent |
| • Dogrose (<i>Rosa canina</i>) | Occasional |
| • Elder (<i>Sambucus nigra</i>) | Occasional |
| • Hawthorn (<i>Crataegus monogyna</i>) | Abundant |
| • Wych elm (<i>Ulmus glabra</i>) | Occasional |

Ground flora

- | | |
|---|------------|
| • Bramble (<i>Rubus fruticosus</i>) | Frequent |
| • Common nettle (<i>Urtica dioica</i>) | Frequent |
| • Creeping thistle (<i>Cirsium arvense</i>) | Frequent |
| • Dock (<i>Rumex sp.</i>) | Frequent |
| • False oatgrass (<i>Arrhenatherum elatius</i>) | Abundant |
| • Herb Robert (<i>Geranium robertianum</i>) | Occasional |
| • Hogweed (<i>Heracleum sphondylium</i>) | Occasional |
| • Red campion (<i>Silene dioica</i>) | Occasional |

PHOTOGRAPH



TARGET NOTE

TN28 – Native Hawthorn Hedgerow

Native hedgerow with trees approximately 2m tall, 1m wide, with some gaps along length, previous laid.

Canopy



- | | |
|---|------------|
| • Ash (<i>Fraxinus excelsior</i>) | Occasional |
| • Dogrose (<i>Rosa canina</i>) | Frequent |
| • Elder (<i>Sambucus nigra</i>) | Frequent |
| • Field maple (<i>Acer campestre</i>) | Occasional |
| • Hawthorn (<i>Crataegus monogyna</i>) | Abundant |
| • Sycamore (<i>Acer pseudoplatanus</i>) | Frequent |
| • Wych elm (<i>Ulmus glabra</i>) | Frequent |


Ground Flora

- | | |
|---|------------|
| • Bramble (<i>Rubus fruticosus</i>) | Frequent |
| • Cock's-foot (<i>Dactylis glomerata</i>) | Abundant |
| • Common nettle (<i>Urtica dioica</i>) | Frequent |
| • Creeping thistle (<i>Cirsium arvense</i>) | Abundant |
| • Dock (<i>Rumex sp.</i>) | Frequent |
| • False oatgrass (<i>Arrhenatherum elatius</i>) | Abundant |
| • Hogweed (<i>Heracleum sphondylium</i>) | Occasional |
| • Red campion (<i>Silene dioica</i>) | Occasional |

PHOTOGRAPH



TARGET NOTE	PHOTOGRAPH
<p>TN29 – Native Hawthorn Hedgerow Native hedgerow with associated ditch. Approximately 2 m tall, 1m wide, large and many gaps along length</p> <p><u>Canopy</u></p> <ul style="list-style-type: none"> Beech (<i>Fagus sylvatica</i>) Occasional Hawthorn (<i>Crataegus monogyna</i>) Abundant <p><u>Ground flora</u></p> <ul style="list-style-type: none"> Creeping thistle (<i>Cirsium arvense</i>) Frequent Dock (<i>Rumex sp.</i>) Frequent False oatgrass (<i>Arrhenatherum elatius</i>) Abundant Hawthorn (<i>Crataegus monogyna</i>) Abundant Yorkshire-fog (<i>Holcus lanatus</i>) Abundant 	
<p>TN30- Native hedgerow Gorse (<i>Ulex europaeus</i>) hedgerow</p>	

TARGET NOTE	PHOTOGRAPH
<p>TN 31 - Non-native and ornamental hedgerow Non-native and ornamental approximately 2m tall and 2m wide</p> <p><u>Canopy</u></p> <ul style="list-style-type: none"> Leyland cypress (<i>Cupressus x leylandii</i>) Abundant Sycamore (<i>Acer pseudoplatanus</i>) Frequent <p><u>Ground flora</u></p> <ul style="list-style-type: none"> Common ivy (<i>Hedera helix</i>) Abundant Red campion (<i>Silene dioica</i>) Frequent 	
<p>TN 32 - Gorse scrub Dense gorse scrub with scattered trees</p> <ul style="list-style-type: none"> Bracken (<i>Pteridium aquilinum</i>) Abundant Bramble (<i>Rubus fruticosus</i>) Frequent Cock's-foot (<i>Dactylis glomerata</i>) Abundant Dewberry (<i>Rubus caesius</i>) Frequent Elder (<i>Sambucus nigra</i>) Frequent False oatgrass (<i>Arrhenatherum elatius</i>) Abundant Gorse (<i>Ulex europaeus</i>) Abundant Hawthorn (<i>Crataegus monogyna</i>) Frequent Perennial ryegrass (<i>Lolium perenne</i>) Abundant Soft rush (<i>Juncus effusus</i>) Locally frequent Yorkshire-fog (<i>Holcus lanatus</i>) Abundant 	

TARGET NOTE

TN 33 – Arable Field Margins

- | | |
|--|------------------|
| • Common mouse-ear (<i>Cerastium fontanum</i>) | Occasional |
| • Daisy (<i>Bellis perennis</i>) | Frequent |
| • Dandelion (<i>Taraxacum agg.</i>) | Frequent |
| • Dock (<i>Rumex sp.</i>) | Frequent |
| • False oatgrass (<i>Arrhenatherum elatius</i>) | Frequent |
| • Fumitory (<i>Fumaria sp.</i>) | Occasional |
| • Hedge mustard (<i>Sisymbrium officinale</i>) | Frequent |
| • Meadow grass (<i>Poa sp.</i>) | Abundant |
| • Perennial ryegrass (<i>Lolium perenne</i>) | Abundant |
| • Pineappleweed (<i>Matricaria discoidea</i>) | Frequent |
| • Prickly sowthistle (<i>Sonchus asper</i>) | Frequent |
| • Ragwort (<i>Jacobaea vulgaris</i>) | Frequent |
| • Scented mayweed (<i>Matricaria chamomilla</i>) | Frequent |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Locally abundant |

PHOTOGRAPH



TARGET NOTE

TN 34 – Arable Field Margins

Arable field margin creeping thistle and nettle are abundant near the hedgerow

- | | |
|---|------------------|
| • Colt's-foot (<i>Tussilago farfara</i>) | Frequent |
| • Common nettle (<i>Urtica dioica</i>) | Locally abundant |
| • Cow parsley (<i>Anthriscus sylvestris</i>) | Frequent |
| • Creeping thistle (<i>Cirsium arvense</i>) | Locally abundant |
| • Dock (<i>Rumex sp.</i>) | Frequent |
| • False oatgrass (<i>Arrhenatherum elatius</i>) | Abundant |
| • Perennial ryegrass (<i>Lolium perenne</i>) | Abundant |
| • Timothy (<i>Phleum pratense</i>) | Frequent |
| • White clover (<i>Trifolium repens</i>) | Frequent |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Frequent |



PHOTOGRAPH






TN 35 – Arable Field Margins

- | | |
|--|------------|
| • Bramble (<i>Rubus fruticosus</i>) | Occasional |
| • Cock's-foot (<i>Dactylis glomerata</i>) | Frequent |
| • Common nettle (<i>Urtica dioica</i>) | Abundant |
| • Cow parsley (<i>Anthriscus sylvestris</i>) | Occasional |
| • Creeping thistle (<i>Cirsium arvense</i>) | Abundant |
| • Crested dog's tail (<i>Cynosurus cristatus</i>) | Frequent |
| • False oatgrass (<i>Arrhenatherum elatius</i>) | Frequent |
| • Perennial ryegrass (<i>Lolium perenne</i>) | Abundant |
| • Scentless mayweed (<i>Tripleurospermum inodorum</i>) | Occasional |
| • Yorkshire-fog (<i>Holcus lanatus</i>) | Occasional |



TARGET NOTE	PHOTOGRAPH
<p>TN36 – Arable Field Margins Field margin with three trees ash (<i>Fraxinus excelsior</i>), hawthorn (<i>Crataegus monogyna</i>), and beech (<i>Fagus sylvatica</i>).</p> <ul style="list-style-type: none"> • Bramble (<i>Rubus fruticosus</i> agg.) Frequent • Common mouse-ear (<i>Cerastium fontanum</i>) Frequent • Common nettle (<i>Urtica dioica</i>) Frequent • Creeping buttercup (<i>Ranunculus repens</i>) Frequent • Creeping thistle (<i>Cirsium arvense</i>) Abundant • False oatgrass (<i>Arrhenatherum elatius</i>) Abundant • Meadow grass (<i>Poa</i> sp.) Abundant • Pineappleweed (<i>Matricaria discoidea</i>) Occasional • Scentless mayweed (<i>Tripleurospermum inodorum</i>) Occasional • Spear thistle (<i>Cirsium vulgare</i>) Frequent • Yorkshire-fog (<i>Holcus lanatus</i>) Frequent 	
<p>TN 37 - Winter stubble</p>	

TARGET NOTE	PHOTOGRAPH
<p>TN 38 -c1d - Non-cereal crops</p>	
<p>TN 39 – Fabricated single story metal substation</p>	
<p>TN 40- Developed land; sealed surface Road</p>	

TARGET NOTE

TN 41 – Other rivers and streams

Small stream with a variety of aquatic species present, and ruderal species in the margin; as well as one goat willow (*Salix caprea*), five white willow (*Salix alba*) trees and one beech (*Fagus sylvatica*) tree

- | | |
|--|------------------|
| • Colt's-foot (<i>Tussilago farfara</i>) | Occasional |
| • Common knapweed (<i>Centaurea nigra</i>) | Locally frequent |
| • Creeping thistle (<i>Cirsium arvense</i>) | Locally abundant |
| • Dock (<i>Rumex sp.</i>) | Frequent |
| • Great willowherb (<i>Epilobium hirsutum</i>) | Locally abundant |
| • Marsh thistle (<i>Cirsium palustre</i>) | Occasional |
| • Soft rush (<i>Juncus effusus</i>) | Occasional |
| • Water mint (<i>Mentha aquatica</i>) | Locally abundant |
| • Water-starwort (<i>Callitriche sp.</i>) | Occasional |

PHOTOGRAPH



TN 42 – Other rivers and streams

Small stream a variety ruderal scrub and trees were present in the margin

- | | |
|---|------------|
| • Ash (<i>Fraxinus excelsior</i>) | Occasional |
| • Bedstraw (<i>Galium sp.</i>) | Frequent |
| • Beech (<i>Fagus sylvatica</i>) | Occasional |
| • Common nettle (<i>Urtica dioica</i>) | Frequent |
| • Creeping buttercup (<i>Ranunculus repens</i>) | Occasional |
| • Creeping thistle (<i>Cirsium arvense</i>) | Frequent |
| • Dock (<i>Rumex sp.</i>) | Occasional |
| • Gorse (<i>Ulex europaeus</i>) | Frequent |
| • Marsh thistle (<i>Cirsium palustre</i>) | Occasional |



TARGET NOTE	PHOTOGRAPH
<p>TN 43 – Other rivers and streams</p> <ul style="list-style-type: none"> • Ash (<i>Fraxinus excelsior</i>) Abundant • Bracken (<i>Pteridium aquilinum</i>) Frequent • Bramble (<i>Rubus fruticosus</i>) Frequent • Cleavers (<i>Galium aparine</i>) Frequent • Common nettle (<i>Urtica dioica</i>) Abundant • Dock (<i>Rumex sp.</i>) Occasional • False oatgrass (<i>Arrhenatherum elatius</i>) Frequent • Duckweed (<i>Lemna minor</i>) Locally abundant • Rosebay willowherb (<i>Chamerion angustifolium</i>) Abundant • Red campion (<i>Silene dioica</i>) Occasional 	
<p>TN 44 – Other rivers and streams Group of White Willows (<i>Salix alba</i>) along the stream 6 mature willows</p>	

TARGET NOTE	PHOTOGRAPH
<p>TN 45 – Ditch</p> <p>Ditch along the edge of the woodland. It was dry at the time of the survey</p> <ul style="list-style-type: none">• Hard rush (<i>Juncus inflexus</i>) Occasional• Reed canary-grass (<i>Phalaris arundinacea</i>) Occasional• Soft rush (<i>Juncus effusus</i>) Frequent• Woodrush (<i>Luzula sp.</i>) Occasional• Tufted hair-grass (<i>Deschampsia cespitosa</i>) Frequent• Yorkshire-fog (<i>Holcus lanatus</i>) Abundant	