

A66 Northern Trans-Pennine project

TR010062

7.20 National Vegetation Classification Survey Report

Infrastructure Planning (Examination Procedure) Rules 2010

Deadline 3

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**The Infrastructure Planning
(Examination Procedure)
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**7.20 NATIONAL VEGETATION CLASSIFICATION SURVEY
REPORT**

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National Vegetation Classification Survey Report

Introduction

The A66 Northern Trans-Pennine project is a programme of works to improve the A66 between the M6 at Penrith and A1 at Scotch Corner.

Between the M6 and the A1(M) the existing A66 is approximately 80km in length. Along this length it is intermittently dualled, with approximately 30km of single carriageway, in six separate sections, making the route accident prone and unreliable.

The route carries high levels of freight traffic and is an important route for tourism and connectivity to local communities. The variable road standards, together with the lack of available diversionary routes when incidents occur, affects road safety, reliability, resilience and attractiveness of the route. For a full project description see Environmental Statement (ES) Chapter 2: The Project (Application Document 3.2 APP-045).

Scope of the Document

This report presents the results of detailed botanical surveys undertaken in summer 2022 following baseline habitat surveys conducted during 2020, 2021 and 2022. These provide confirmatory support of the findings and assessment reported in the Environmental Statement (ES) as set out in section 6.7.36 of ES Chapter 6 Biodiversity (APP-049).

The report provides a continuation of the botanical assessment presented in ES Appendix 6.5: Phase 2 National Vegetation Classification Report (Document Reference 3.4, APP-158), which included desk study data on notable vegetation communities. To ensure that optimal survey windows for key habitat communities were captured in 2022, it was agreed with Natural England that this report would be provided as a supplementary addendum to the ES to further substantiate the botanical related assessment (See Table 6-8, ES Chapter 6 Biodiversity, Document Reference 3.2, APP-049).

This report presents the results of investigations into certain examples of vegetation of potentially above-average interest or nature conservation value. These investigations centred on identifying the National Vegetation Classification (NVC) types to which the target vegetation belongs.

The scope of NVC survey work in summer 2022 includes the whole Project area. Table 1: Site locations and survey type specified gives details of the NVC survey site locations, and these are also shown on NVC Figures 1 – 15.

Table 1: Site locations and survey type specified

Site Ref	Central National Grid Reference (NGR)	Survey type	Site designation/priority habitat	Scheme
23	NY5060029058	NVC Woodland	S41 Deciduous Woodland	M6 Junction 40 to Kemplay Bank
31	NY5074228456	NVC Woodland	S41 Deciduous Woodland & County Wildlife Site (Skirsgill Woods)	
2	NY5082228758	NVC Woodland	S41 Deciduous Woodland	
17	NY5109128601	NVC Woodland	N/A	

Site Ref	Central National Grid Reference (NGR)	Survey type	Site designation/priority habitat	Scheme
16	NY5133628150	NVC Woodland	S41 Deciduous Woodland & County Wildlife Site (Yanwath Wood)	
9	NY5133728895	NVC Grassland	N/A	
65	NY5154728799	NVC Grassland	N/A	
64	NY5167528783	NVC (unspecified)	N/A	
71	NY5184428665	NVC Woodland	River Eden SAC; River Eden & Tributaries SSSI; River Eamont, Banks of River Eamont SSSI	
33	NY5224428966	NVC Grassland	N/A	
63	NY5242429007	NVC Woodland	N/A	
24	NY5280529398	NVC Woodland	S41 Deciduous Woodland	
40	NY5445428967	NVC Grassland	N/A	
25	NY5481628987	NVC Grassland	N/A	
61	NY5497829208	NVC Woodland	In proximity to River Eden SSSI/SAC	Penrith to Temple Sowerby
6	NY5507028621	NVC Woodland	S41 Deciduous Woodland & Non-Designated Adjacent Woodland	
60	NY5528929357	NVC Grassland/Woodland	Adjacent to River Eden SSSI/SAC	
42	NY5576529264	NVC Grassland	N/A but adjacent to River Eden	
41	NY5606529137	NVC Woodland	Part of River Eden SAC; River Eden & Tributaries SSSI; S41 Deciduous Woodland	
62	NY5706028562	NVC Grassland	N/A	
30	NY5722328116	NVC Woodland	N/A	
32	NY5822728599	NVC Woodland/Marginal Vegetation	N/A	
27	NY5826128825	NVC Woodland	N/A	
12	NY5873228891	NVC Marshy Grassland/Grassland	N/A	
20	NY5909228646	NVC Grassland	N/A (Roman Road)	

Site Ref	Central National Grid Reference (NGR)	Survey type	Site designation/priority habitat	Scheme	
4	NY5944928660	NVC Woodland	S41 Deciduous Woodland		
36	NY6012227277	NVC Woodland	Oglebird Plantation Ancient Woodland	Temple Sowerby to Appleby	
18	NY6159927028	NVC Woodland/Fen	Temple Sowerby SSSI; S41 Fen		
67	NY6246426859	NVC Marshy Grassland/Swamp	N/A		
66	NY6432725725	NVC Grassland	N/A		
7	NY6563024133	NVC Woodland	Adjacent to/Part River Eden SAC; Part River Eden & Tributaries SSSI; Part S41 Deciduous Woodland		
13	NY6704321674	NVC Woodland	Chapel Wood Ancient Woodland; S41 Deciduous Woodland		
5	NY6742921108	NVC Woodland	Ross Wood Ancient Woodland		
10	NY6752821267	NVC Woodland	S41 Deciduous Woodland		
59	NY7196518296	NVC Heathland/Grassland	S41 Heathland		Appleby to Brough
58	NY7281417066	NVC Mire/Marsh	Sandford Mire & S41 Purple Moor Grass & Rush Pasture		
28	NY7337216758	NVC Grassland	Designated Road Verge - Neutral Grassland		
3	NY7339416794	NVC Grassland	Designated Roadside Verge - Neutral Grassland		
15	NY7342116736	NVC Grassland	Designated Road Verge - Neutral Grassland		
22	NY7343616746	NVC Grassland	Designated Road Verge		
14	NY7351617422	NVC Grassland	S41 Unconfirmed Habitats		
19	NY7361017175	NVC Fen	S41 Fen		
57	NY7431716248	NVC Grassland/Marshy Grassland	N/A		
8	NY7432016759	NVC Marsh	N/A		
56	NY7505516478	NVC Woodland	S41 Deciduous Woodland		
37	NY7510715688	NVC Woodland	S41 Deciduous Woodland		

Site Ref	Central National Grid Reference (NGR)	Survey type	Site designation/priority habitat	Scheme
29	NY7555815451	NVC Grassland	N/A	
35	NY7558916037	NVC Woodland	S41 Deciduous Woodland	
55	NY7671315086	NVC Marsh/Marshy Grassland	N/A	
1	NY7674515431	NVC Marsh/Mire/Woodland	N/A	
69	NY7790515010	NVC Woodland	N/A	
11	NY7843815336	NVC Grassland	N/A	
39	NY7555916065	NVC Woodland	S41 Deciduous Woodland	
54	NY9840513699	NVC Heathland/Grassland	Bowes Moor SSSI/ SAC/SPA & S41 Heathland	Bowes Bypass
53	NY9916313247	NVC Woodland	S41 Deciduous Woodland	
51	NY9930213760	NVC Grassland	N/A	
52	NY9933413903	NVC Marsh/Grassland	N/A	
21	NZ0826913576	NVC Woodland	S41 Woodland and Rokeby Park II	Cross Lanes to Rokeby
34	NZ0777213769	NVC Woodland	S41 Broadleaved Woodland & Rokeby Park II	
43	NZ0753913214	NVC Woodland	N/A	
44	NZ0690514123	NVC Woodland	N/A	
45	NZ0593014077	NVC Woodland	N/A	
46	NZ0508613389	NVC Woodland	N/A	
47	NZ0450213454	NVC Grassland	S41 Upland Hay Meadow	
50	NZ0458413897	NVC Grassland	N/A	
49	NZ0466014129	NVC Woodland	S41 Deciduous Woodland	
48	NZ0505614222	NVC Woodland	N/A	
26	NZ1206010352	NVC Woodland*	S41 Deciduous Woodland	Stephen Bank to Carkin Moor
68	NZ1618908514	NVC Woodland	N/A	
38	NZ2149705291	NVC Woodland	S41 Deciduous Woodland	A1(M) Junction 53 Scotch Corner

*Survey type changed to NVC Marsh/Grassland as woodland was found to be felled at the time of survey.

Legislation and Policy Framework

Legislation

The following key legislation is applicable to this survey report.

Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (the 'Habitats Regulations 2017') offer protection to a number of plant and animal species via the designation of Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

The Habitats Regulations also offer protection to a number of 'European Protected Species' (EPS), and make it an offence to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5.

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 does not make any substantive changes to the protection of SACs, SPAs or species classed as EPS.

Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act (WCA) 1981 (as amended) is the primary legislation covering endangered species in England and sets out the framework for the designation of Sites of Special Scientific Interest (SSSI). It confers differing levels of protection on species themselves, their habitats, or both, depending on their conservation status.

Species offered protection by the Act are listed in a series of schedules. These schedules are subject to a rolling review on a five yearly basis. Schedule 8 of the WCA lists plants which are afforded protection under section 13 of the Act. Subject to certain provisions it is an offence to:

intentionally or recklessly pick, uproot or destroy any wild plant included in Schedule 8 or any seed or spore attached to any such wild plant
not being an authorised person, intentionally or recklessly uproot any wild plant not included in that Schedule.

Natural Environment and Rural Communities Act 2006

The UK Biodiversity Action Plan (UKBAP) covering 2011-2020 has been superseded by the UK Post-2010 Biodiversity Framework (Joint Nature Conservation Committee, 2012)¹. The framework identifies 65 Priority Habitats and 1150 Priority Species that are in need of protection from activities that threaten their long-term survival. This list has been used to define habitats and species of 'Principal Importance' in England (the Section 41 list) as required by the Natural Environment and Rural Communities (NERC) Act 2006.

Section 41 includes 402 vascular and non-vascular plants and 56 Habitats of Principal Importance (HoPI) (Natural England, 2022)².

All planning decisions must be made with regard for the conservation of S41 species and habitats and any priority actions (Natural England, 2014)³ associated with them.

¹ Joint Nature Conservation Committee (2012) UK Post-2010 Biodiversity Framework

² Natural England (2022) Habitats and species of principal importance in England

³ Natural England (2014) Priority Actions for S41 Species

Environment Act 2021

The act creates a post Brexit framework to protect and enhance the natural environment. Through amendments to the Town and Country Planning Act 1990, the Act will require all planning permissions in England to be granted subject to a new general pre-commencement condition that requires approval of a biodiversity net gain plan. Works to deliver biodiversity net gain can be carried out either onsite or offsite or through the purchase of 'biodiversity credits' from the Secretary of State. Both onsite and offsite mitigation must be maintained for at least 30 years after development.

National policy

National Policy Statement for National Networks

The primary policy basis for deciding whether or not to grant a Development Consent Order (DCO) is the *National Policy Statement for National Networks (NPSNN)* (Department for Transport, 2014)⁴, which sets out policies to guide how DCO applications will be decided and how the effects of national networks infrastructure should be considered by the relevant decision maker. The policies for biodiversity and ecological conservation include statements that:

“Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part. Government policy for the natural environment is set out in the Natural Environment White Paper (NEWP). The NEWP sets out a vision of moving progressively from net biodiversity loss to net gain, by supporting healthy, well-functioning ecosystems and establishing more coherent ecological networks that are more resilient to current and future pressures...” (NPSNN paragraph 5.20)

The NPSNN also advises:

“In taking decisions, the Secretary of State should ensure that appropriate weight is attached to designated sites of international, national and local importance, protected species, habitats and other species of principal importance for the conservation of biodiversity, and to biodiversity and geological interests within the wider environment.” (NPSNN paragraph 5.26)

Table 2: NPSNN paragraphs of relevance to habitats and species of botanical interest identifies the NPSNN policies relevant to habitats and species of botanical interest.

Table 2: NPSNN paragraphs of relevance to habitats and species of botanical interest

Relevant NPSNN paragraph reference	Requirement of the NPSNN (paraphrase)	Where addressed
5.22	Outline any likely significant effects on internationally, nationally and locally designated sites of ecological or geological conservation importance on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity and that the statement	ES Biodiversity Chapter 6, Section 6.10: Assessment of likely significant effects (Document

⁴ Department for Transport (2014) National Policy Statement for National Networks

Relevant <i>NPSNN</i> paragraph reference	Requirement of the <i>NPSNN</i> (paraphrase)	Where addressed
	considers the full range of potential impacts on ecosystems.	Reference 3.2, APP-049)
5.23	Demonstrate how the project has taken advantage of opportunities to conserve and enhance biodiversity conservation interests.	ES Biodiversity Chapter 6, Section 6.9: Essential mitigation and enhancement measures (Document Reference 3.2, APP-049) and Environmental Management Plan (EMP) (Document Reference 2.7, APP-019)
5.29	Ensure proposals mitigate the harmful aspects of the development and, where possible, to ensure the conservation and enhancement of the site's biodiversity are acceptable.	ES Biodiversity Chapter 6, Section 6.9: Essential mitigation and enhancement measures (Document Reference 3.2, APP-049) and Environmental Management Plan (EMP) (Document Reference 2.7, APP-019)
5.33	Development proposals potentially provide many opportunities for building in beneficial biodiversity features. Opportunities to maximise beneficial biodiversity features should be considered. Planning obligations can be used where appropriate in order to ensure that such beneficial features are delivered.	Appendix 6.2: Designated sites (Document Reference 3.4, APP-155); ES Biodiversity Chapter 6, Section 6.7: Baseline Conditions; Section 6.8: Potential

Relevant NPSNN paragraph reference	Requirement of the NPSNN (paraphrase)	Where addressed
		Impacts; Section 6.10: Assessment of likely significant effects and Section 6.9: Essential mitigation and enhancement measures (Document Reference 3.2, APP-049)
5.34 and 5.35	Individual wildlife species receive statutory protection under a range of legislative provisions. Other species and habitats have been identified as being of principal importance for the conservation of biodiversity in England and Wales. Undertake measures to ensure these species and habitats are protected from adverse effects. Where appropriate, requirements or planning obligations may be used in order to deliver this protection.	Appendix 6.2: Designated Sites to ES Appendix 6.22: White-Clawed Crayfish (Document Reference 3.4 APP-155 to APP-175); Section 6.7: Baseline Conditions and Section 6.9: Essential mitigation and enhancement measures (Document Reference 3.2, APP-049)
5.36	Include appropriate mitigation measures as an integral part of their proposed development, including identifying where and how these will be secured	ES Biodiversity Chapter 6, Section 6.9: Essential mitigation and enhancement measures (Document Reference 3.2, APP-049); EMP (Document Reference 2.7,

Relevant NPSNN paragraph reference	Requirement of the NPSNN (paraphrase)	Where addressed
		APP-019) and Environmental Mitigation Maps (Document Reference 2.8, APP-041)
5.37	Consider what appropriate requirements should be attached to any consent and/or in any planning obligations entered into in order to ensure that mitigation measures are delivered.	ES Biodiversity Chapter 6, Section 6.9: Essential mitigation and enhancement measures (Document Reference 3.2, APP-049); EMP (Document Reference 2.7, APP-019), and Environmental Mitigation Maps (Document Reference 2.8, APP-041)

National Planning Policy Framework

The *National Planning Policy Framework (NPPF)* (Ministry of Housing, Communities & Local Government, 2021)⁵ originally published in March 2012 and most recently updated in July 2021, sets out the government’s planning policies for England and provides a framework within which locally prepared plans can be produced. The *NPPF* is “*an important and relevant matter to be considered in decision making for NSIP*”.

Regional and local level policy

The designation and protection afforded to Local Nature Reserves (LNR), Local Wildlife Sites (LWS), Sites of Importance for Nature Conservation (SINCs), County Wildlife Sites (CWS), and locally important habitats and species are controlled by local council policies. Although the UK Biodiversity Action Plan (BAP) has been superseded, BAPs are still widely used at county level to support Biodiversity 2020 (Department for Environment Food and Rural Affairs, 2011)⁶.

The following local planning policies and documents are relevant to this report:

Eden Local Plan 2014 to 2032 (Eden District Council, 2014)⁷ Policy ENV1 and Policy ENV4

⁵ Ministry of Housing, Communities & Local Government (2021) National Planning Policy Framework

⁶ Department for Environmental Food and Rural Affairs (2011) Biodiversity 2020: A Strategy for England’s Wildlife and Ecosystem Services.

⁷ Eden District Council (2014) Eden Local Plan 2014 to 2032

County Durham Plan - Adopted 2020 (Durham County Council, 2020)⁸ Policy 26, Policy 40, Policy 41, Policy 42 and Policy 43

Richmondshire Local Plan 2012-2028 adopted 2014 (Richmondshire District Council, 2014)⁹ Core Policy CP12

Cumbria BAP (Cumbria Biodiversity Partnership, 2001)¹⁰

Durham County Council BAP (2012/13) now listed on North East England Nature Partnership (North East England Nature Partnership, 2013)¹¹

Richmondshire BAP (Richmondshire District Council, 2014)¹²

Habitats and species identified as priorities within relevant local BAPs are listed in Table 3: Habitats and plant species listed within local BAPs.

Table 3: Habitats and plant species listed within local BAPs

	Cumbria BAP	Durham BAP	Richmondshire BAP
Species			
Juniper <i>Juniperus communis</i>	X		
Black poplar <i>Populus nigra</i>		X	
Pale Bristle Moss <i>Orthotrichum pallens</i>		X	
Yellow Marsh Saxifrage <i>Saxifraga hirculus</i>		X	
Habitat			
Standing water		X	
Mesotrophic standing waters	X	(XX)	X
Rivers and streams	X	X	X
Cities towns and villages	X		X
Honeycomb worm reefs	X		
Farmland			X
Ancient and/or species rich hedgerows	X	(XX)	X
Native hedgerows	(XX)	X	(XX)
Floodplain grassland			X
Calcareous grassland	X	(XX)	X
Magnesian Limestone Grassland		X	
Hay meadows and lowland pastures	X	X	X
Moorland edge including Upland acid grassland			X
Limestone pavement	X		
Purple moorgrass and rush pasture	X		
Blanket bog	X		
Upland heathland	X		X

⁸ Durham Council (2020) County Durham Plan – Adopted 2020

⁹ Richmondshire District Council (2014) Richmondshire Local Plan 2012 - 2028 Core Strategy (Adopted 9 December 2014)

¹⁰ Cumbria Biodiversity Partnership (2001) The Cumbria Biodiversity Action Plan

¹¹ North East England Nature Partnership (2013) Biodiversity Priorities

¹² Richmondshire District Council (2014) Richmondshire Biodiversity Action Plan

	Cumbria BAP	Durham BAP	Richmondshire BAP
Lowland heath		X	
Basin mire	X		
Lowland raised mire	X		
Reedbed	X	X	X
Fen		X	X
Woodland			X
Lowland wood pasture and parkland		X	X
Veteran trees		X	
Upland oak woodland	X	(XX)	(XX)
Upland mixed ashwood	X	(XX)	(XX)
Wet woodland	X	X	(XX)
Ancient Semi-Natural woodland		X	(XX)
Other broadleaved woodland		X	(XX)
Scrub		X	
Early successional brownfield sites		X	
Transport corridors		X	
Waxcap grassland		X	
Coastal habitats		X	
Note: where possible duplicate habitat definitions have been combined. Where a habitat definition in one BAP is included within another BAP without being explicitly identified (XX) indicates the overlap.			

Methodology

Desk study

Desk study information on priority habitats and vegetation communities was used to provide context and to identify the sites for the NVC survey. This included a review of Phase 1 Habitat survey data, aerial imagery, the locations of designated nature conservation sites and citation information on NVC habitat types present or presence of plant species indicative of good quality habitats suitable for NVC survey. Site management plans and information on SSSI condition units was reviewed where available. Sources consulted included Natural England's *Designated Sites View* (Natural England, 2022)¹³ and *MAGIC* (Department for Environment Food and Rural Affairs, 2022)¹⁴. Vegetation communities identified for NVC survey included a mix of grassland, woodland, mires, swamp and tall-herb fen and vegetation of open habitats.

Prior to undertaking the survey, surveyors undertook a further review of aerial photographs, plans and existing survey data for the survey area. Homogenous stands and mosaics of vegetation were identified and mapped onto the aerial photographs, where possible, in preparation for the field survey work.

¹³ Natural England (2022) Designated Sites View

¹⁴ Department for Environment, Food and Rural Affairs (2022) MAGIC

Field survey

Detailed NVC survey which focused on assessing land parcels identified as potentially comprising habitats of conservation interest, was undertaken using the NVC system (Rodwell, 1991 *et seq.*)¹⁵ and in accordance with *NVC survey guidelines* (Rodwell, 2006)¹⁶. The NVC scheme provides a standardised system for classifying and mapping semi-natural habitats, with the aim that surveys are carried out to a consistent level of detail and accuracy.

Surveys were completed by two surveyor teams, each comprising an experienced lead ecologist and an assistant. All surveys were undertaken between June and July 2022 within the growing season and therefore survey window for the majority of key habitat communities being surveyed (Rodwell, 1991 *et seq.*)¹⁵

Each land parcel was walked on site to identify stands of homogenous vegetation and a polygon was created for each standing using a handheld GIS device. Quadrat data were collected from homogeneous stands of vegetation following the standard methods for identifying NVC types (Rodwell, 2006).

NVC communities were attributed to each polygon using surveyor experience and by matching field data against published floristic keys and tables (Rodwell, 1991 *et seq.*). Stands were classified at community level. Where sub-communities were readily identifiable, these have also been documented.

Quadrat sampling was used to quantify species composition to enable determination of community type on completion of the surveys.

Initial sampling of each vegetation type was carried out as recommended in the NVC Users' Handbook, by sampling at random in stands of vegetation judged by eye to be floristically and structurally homogeneous.

The size of each quadrat was dependant on vegetation type:

2x2m for short herbaceous vegetation, dwarf-shrub heaths
4x4m for short woodland field layers, tall herbaceous vegetation, heaths, open vegetation
10x10m for dense scrub, tall woodland field layers, species-poor herbaceous vegetation
50x50m for woodland canopy and shrub layers, sparse scrub

It should be noted however, that quadrat size may have been adjusted based on the area of homogenous vegetation identified and the access available in order to safely undertake the survey. Professional judgement was applied in this case. Any changes to quadrat size are detailed within the raw survey data (refer to Annex B: Raw NVC Data Tables).

Each quadrat position was recorded as a twelve-figure grid reference using a GPS enabled tablet. Within each quadrat, all vascular plants and bryophytes of frequent occurrence (and some less frequent but readily recognisable) were identified and an estimate of cover value of each made, using the DOMIN scale of cover as shown below:

10 - 91–100%
9 - 76–90%
8 - 51–75%
7 - 34–50%
6 - 26–33%

¹⁵ Rodwell, J.S. (Ed.) (1991 *et seq.*). *British Plant Communities*. 5 volumes: Vol. 1 (1991) - Woodlands and Scrub; Vol. 2 (1991) - Mires and Heaths; Vol. 3 (1992) - Grasslands and montane communities; Vol. 4 (1995) - Aquatic communities, swamps and tall-herb fens. Cambridge: Cambridge University Press.

¹⁶ Rodwell, J.S. (2006) *National Vegetation Classification: Users' Handbook*. Joint Nature Conservation Committee.

- 5 - 11–25%
- 4 - 4–10%
- 3 - Many individuals
- 2 - Several individuals
- 1 - Few individuals

As per NVC methodology, a survey effort of 3 – 5 quadrats was aimed for within each homogenous area identified. Professional judgement was used to determine the appropriate number of quadrats undertaken. Reduced numbers of quadrats were applied in the following situations, where the:

area of homogenous vegetation did not allow additional quadrats to be undertaken without overlap.

access was limited to the area of homogenous vegetation for further quadrats to be undertaken.

species composition was judged to be uniform across the entire habitat and either a single quadrat was undertaken, or a detailed species list was compiled for the entire survey area.

Data recording

Areas of homogenous vegetation and quadrat central locations were recorded in field using handheld tablets equipped with GIS recording capability. A separate NVC recording form was further completed within each area of homogenous vegetation which detailed habitat structure and botanical species and abundances compiled for each survey quadrat. Data was then subject to a cleaning process, post-survey, to ensure accurate area measurements, clear survey notes and correct recording of botanical species and abundances in preparation for analysis.

Nomenclature

Plant nomenclature within this report follows Stace (2010)¹⁷ for native and naturalised species of vascular plant. Introduced species and garden varieties were identified using the relevant texts. Plant names in the text are given with English names first, followed by the scientific name. Where applicable, doubtful identifications are preceded by 'cf.' placed before the specific epithet where the plant is very probably the species indicated, but it is impossible to distinguish it from similar members of the genus with certainty. Nomenclature for any mosses and liverworts follows Hill *et al.* (2008)¹⁸. Names of NVC communities and sub-communities follow British Plant Communities: volumes 1 to 5 (Rodwell, 1991 *et seq.*)¹⁵.

Data analysis

Field data was subject to data cleansing and verification. Data analysis was initially undertaken through use of the Modular Analysis of Vegetation Information System (MAVIS) software¹⁹ to provide a list of probable communities. Data were then analysed using the British Plant Communities: volumes 1 to 5 (Rodwell, 1991 *et seq.*)¹⁵ with use of the published floristic tables. Professional judgement was applied where necessary to determine the final NVC classification for each survey plot.

¹⁷ Stace, C. (2010) *New Flora of the British Isles*. 3rd Edn. Cambridge: Cambridge University Press.

¹⁸ Hill, M.O., Blackstock, T.H., Long, D.G. & Rothero, G.P. (2008) *A checklist and census catalogue of British and Irish bryophytes: Updated 2008*. Middlewich: British Bryological Society.

¹⁹ UK Centre for Ecology and Hydrology: MAVIS V1.03 software (Dart Computing and CEH).

The resulting NVC habitat classification has then been further classified into the appropriate UK Habitat Classification type (UKHab; Butcher *et al.* 2020)²⁰ and associated Biodiversity Metric (BM) (Natural England, 2019)²¹ to allow conversion of the data into the routewide Biodiversity Net Gain (BNG) assessment.

Additional review of the habitats and botanical species found during the NVC survey was undertaken to check whether any species qualified as:

Ancient Woodland Indicator species (AWI), indicating the presence of prolonged historic woodland cover in the area.

invasive non-native species listed within Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) (Sch9).

species protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) (Sch8).

rare and scarce botanical species listed under the Botanical Society of Britain & Ireland (BSBI) County Durham Rare Plant Register (2016)²² and the Cumbria Biodiversity Action Plan (CBAP) Species List²³ (note there is no Rare Plant Register available for Cumbria).

In addition the habitat types recorded present were reviewed for their potential to support Habitats of Principal Importance (HoPI), or those that are listed within local Biodiversity Action Plans for Cumbria¹⁰, Durham¹¹ or Richmondshire¹².

Assumptions and Limitations

Field survey

Access was not available to two of the 71 sites identified for NVC survey on Ministry of Defence (MOD) land on 06: Appleby to Brough scheme due to the presence of military exercises being undertaken in the area (NVC Figure 8). This equated to an approximate area of 7.5ha of the total 129.7ha covered by the NVC surveys. This was not considered a limitation as it is considered that sufficient survey data to provide supplementary data to the assessment was collected at the remaining 69 sites.

Further to this, access within some areas of the identified sites was restricted by the presence of steep embankments, dense vegetation and the proximity of major carriageways or railway lines. Close focussing binoculars were used in this case to determine extent of homogenous vegetation and for identification of woodland canopy species. Following this method, and through using representative ground-flora quadrats within accessible areas of the homogenous vegetation, it is considered that a robust assessment of NVC communities present could be undertaken.

Due to the constraints of the survey brief, professional judgement was applied when determining the number of quadrats undertaken and/or whether a detailed species list was more appropriate based on the community structure and botanical value of the habitat present. As a result, a number of plots were surveyed with reduced numbers of quadrats in an effort to improve survey efficiency. This was not considered to be a limitation as sufficient survey data was collected to allow the classification of NVC communities to the required standard of the project.

In addition to this, the site boundaries defined at desk study were refined in the field to exclude areas of low value habitats with no botanical interest. Professional judgement was applied as

²⁰ Butcher, B., Carey, P., Edmonds, R., Norton, L. & Treweek, J. (2020) UK Habitat Classification – Habitat Definitions V1.1.

²¹ Natural England (2019) The Biodiversity Metric 2.0.

²² Durkin, J. (2016) County Durham Rare Plant Register. Botanical Society of Britain & Ireland.

²³ Cumbria Wildlife Trust (2009) Biodiversity Action Plan Species List, updated 2009.

to whether a NVC survey was appropriate in each survey area. As extensive Phase 1 Habitat surveys have been undertaken along the route, a decision was made as to whether further botanical survey would provide any useful additional information or not.

Data interpretation

Vegetation communities encountered in the field may differ from the plant communities defined in the NVC floristic tables and local conditions may result in a poor fit or low correlation coefficient.

The outputs generated by MAVIS provide a range of potential communities with an indication of how well this fits that data. All outputs from MAVIS require review against the relevant NVC handbook and surveyor judgement has been applied where necessary. This methodology is considered to provide a robust interpretation of NVC communities and has higher confidence than MAVIS output alone.

Human intervention including re-planting and disturbance of ground flora created difficulties in assigning a NVC community for a number of habitats within the survey sites. The most appropriate community has been determined for each area of homogeneous vegetation; however, in the case of several woodland areas, and a small number of grassland habitats a classification of 'No Recognisable NVC community' has been applied to reflect that anthropogenic disturbance of the habitat has rendered it un-recognisable from any NVC community.

For certain areas of 'homogenous vegetation', multiple NVC communities have been assigned. This represents a mosaic of habitats for which it was considered impossible to accurately define into separate homogenous areas due to the distribution and transition between habitat types.

Results

An overview of individual sites and plots is provided in Annex A: NVC Survey Results Overview. Full site and plot descriptions, along with NVC classification and individual quadrat data is provided in Annex B: Raw NVC Data Tables. NVC communities mapped across the Project are shown on NVC Figures 1 – 15.

Route wide NVC overview

A total of 28 different NVC communities were identified within the survey sites. This included communities associated with the broad habitats: heaths (H), mires (M), mesotrophic grasslands (MG), open habitats (OV), swamps and tall-herb fens (S), calcifugous grasslands and montane communities (U), and woodlands (W). Table 4: NVC communities identified describes each habitat-type identified, the total area, associated sub-communities found and the affiliated UKHab/BM habitat classification.

Table 4: NVC communities identified

NVC code	Community description	Total area (ha)	Sub-communities identified	Sub-community description	Associated UKHab/BNG classification
H1	<i>Calluna vulgaris-Festuca ovina</i> heath – Community dominated by heather <i>C. vulgaris</i> with a typically poor diversity of	11.85	E	species-poor sub-community	h1a – Lowland heathland

NVC code	Community description	Total area (ha)	Sub-communities identified	Sub-community description	Associated UKHab/BNG classification
	associated vascular plants.				
M13	Schoenus nigricans-Juncus subnodulosus mire – Community characterised by frequent black bog rush <i>S. nigricans</i> , commonly intermixed (or dominated) with blunt-flowered rush <i>J. subnodulosus</i> or sharp-flowered rush <i>J. acutiflorus</i> .	0.10	a	<i>Festuca rubra</i> - <i>Juncus acutiflorus</i> sub-community	g3c – Other neutral grassland
M23	Juncus effusus/acutiflorus-Galium palustre rush-pasture – Community characterised by an abundance of soft-rush <i>J. effusus</i> , and/or sharp-flowered rush <i>J. acutiflorus</i> .	19.73	a	<i>Juncus acutiflorus</i> sub-community	f2a – Lowland fens (BM: Fens (Upland & Lowland))
M25	Molinia caerulea-Potentilla erecta mire – Community characterised by abundant purple moor-grass <i>M. caerulea</i> . Tormentil <i>P. erecta</i> is typically constant with few other species present.	4.82	c	<i>Angelica sylvestris</i> sub-community	g1a6 – Other lowland acid grassland/f2a – Lowland fens (BM: Fens (Upland & Lowland))
M27	Filipendula ulmaria-Angelica sylvestris mire – Community characterised by dominant meadowsweet <i>F. ulmaria</i> . Wild angelica <i>A. sylvestris</i> is common but not always present.	10.41	c	<i>Juncus effusus</i> - <i>Holcus lanatus</i> sub-community	f2a – Lowland fens (BM: Fens (Upland & Lowland))
MG1	Arrhenatherum elatius grassland – Typically unmanaged grasslands with false oat-grass <i>A. elatius</i> , cock's-foot <i>Dactylis glomerata</i> and	14.11	a	<i>Festuca rubra</i> sub-community	g3c5 – <i>Arrhenatherum</i> neutral grassland (BM: Other neutral grassland)
			b	<i>Urtica dioica</i> sub-community	

NVC code	Community description	Total area (ha)	Sub-communities identified	Sub-community description	Associated UKHab/BNG classification
	Yorkshire-fog <i>Holcus lanatus</i> as constants.		c	<i>Filipendula ulmaria</i> sub-community	
			e	<i>Centaurea nigra</i> sub-community	
MG4	<i>Alopecurus pratensis-Sanguisorba officinalis</i> grassland – Typically species-rich grasslands with a wide diversity of grass species and no single species as dominant.	1.50	N/A	N/A	g3a5 – Lowland hay meadows (BM: Lowland meadows)
MG6	<i>Lolium perenne-Cynosurus cristatus</i> grassland – Typical cultivated grassland that generally has a short grass-dominated sward. Perennial ryegrass <i>L. perenne</i> is constant, however other grass species can become prominent in the absence of management/grazing.	13.93	a	typical sub-community	g3c6 – <i>Lolium-Cynosurus</i> neutral grassland (BM: Other neutral grassland)/g4 – Modified grassland
MG6			b	<i>Anthoxanthum odoratum</i> sub-community	
MG7	<i>Lolium perenne</i> leys and related grasslands – Cultivated grassland, typically species-poor and dominated by perennial ryegrass <i>L. perenne</i> . White clover <i>Trifolium repens</i> is usually present and constant.	2.79	a	<i>Lolium perenne-Trifolium repens</i> leys	g4 – Modified grassland
MG9	<i>Holcus lanatus-Deschampsia cespitosa</i> grassland – Coarse sward grassland dominated by tufted hair-grass <i>D. cespitosa</i> with an abundance of tussocky grasses such as Yorkshire-fog <i>H. lanatus</i> , false oat-grass <i>A. elatius</i> ,	12.54	a	<i>Poa trivialis</i> sub-community	
MG9			b	<i>Arrhenatherum elatius</i> sub-community	g3c – Other neutral grassland

NVC code	Community description	Total area (ha)	Sub-communities identified	Sub-community description	Associated UKHab/BNG classification
	and cock's-foot <i>Dactylis glomerata</i>				
MG10	Holcus lanatus-Juncus effusus rush-pasture – Community characterised by tussocks of soft-rush <i>J. effusus</i> . Yorkshire-fog <i>H. lanatus</i> is often present and abundant. Often found scattered within agricultural grasslands but can form extensive areas.	2.11	a	typical sub-community	g3c8 - <i>Holcus-Juncus</i> neutral grassland (BM: Other neutral grassland)/g4 – Modified grassland
OV26	<i>Epilobium hirsutum</i> community – Tall-herb/weed community on moist soils with great willowherb <i>E. hirsutum</i> and common nettle <i>Urtica dioica</i> as constants. Typically found within fen habitats or as marginal vegetation.	1.21	a	<i>Juncus effusus-Ranunculus repens</i> sub-community	f2a – Lowland fens (BM: Fens (Upland & Lowland)/f2d – Marginal vegetation (BM: Ponds (non-priority habitat)/Other rivers and streams))/g3c – Other neutral grassland
			c	<i>Filipendula ulmaria-Angelica sylvestris</i> sub-community	
			d	<i>Arrhenatherum elatius-Heracleum sphondylium</i> sub-community	
S4	<i>Phragmites australis</i> swamp and reed-beds – Community characterised by a dominance of common reed <i>P. australis</i> on permanently inundated soils.	1.95	N/A	N/A	f2e – reedbeds
S6	<i>Carex riparia</i> swamp – Community characterised by a dominance of greater pond-sedge <i>C. riparia</i> and few other species.	0.21	N/A	N/A	f2a – Lowland fens (BM: Fens (Upland & Lowland))

NVC code	Community description	Total area (ha)	Sub-communities identified	Sub-community description	Associated UKHab/BNG classification
S9	Carex rostrata swamp – Community characterised by a dominance of beaked sedge <i>C. rostrata</i> and few other species.	8.38	N/A	N/A	f2a – Lowland fens (BM: Fens (Upland & Lowland))
S26	Phragmites australis-Urtica dioica tall-herb fen – Community characterised by a dominance of common reed <i>P. australis</i> on moist soils with other tall herb species.	2.14	a	<i>Filipendula ulmaria</i> sub-community	f2a – Lowland fens (BM: Fens (Upland & Lowland))
S28	Phalaris arundinacea tall-herb fen – Community characterised by a dominance of reed canary-grass <i>P. arundinacea</i> and few other species.	0.91	N/A	N/A	f2a – Lowland fens (BM: Fens (Upland & Lowland))
U4	Festuca ovina-Agrostis capillaris-Galium saxatile grassland – Community characteristically dominated by a grass mixture of sheep’s fescue <i>F. ovina</i> , common bent <i>A. capillaris</i> and sweet vernal grass <i>Anthoxanthum odoratum</i> .	7.81	a	typical sub-community	g1a6 – Other lowland acid grassland
U5	Nardus stricta-Galium saxatile grassland – Community with prominent mat-grass <i>N. stricta</i> , typically abundant.	17.37	a	species-poor sub-community	g1a6 – Other lowland acid grassland
W1	Salix cinerea-Galium palustre woodland – Canopy dominated by grey willow <i>S. cinerea</i> with occasional associated woody	1.20	N/A	N/A	w1d – Wet woodland

NVC code	Community description	Total area (ha)	Sub-communities identified	Sub-community description	Associated UKHab/BNG classification
	species. On flood plains and riparian margins.				
W2	<i>Salix cinerea</i>-<i>Betula pubescens</i>-<i>Phragmites australis</i> woodland – Community characterised by frequent grey willow <i>S. cinerea</i> and downy birch <i>B. pubescens</i> . Common reed <i>P. australis</i> is typically present within field layer. Alder <i>Alnus glutinosa</i> can be locally frequent.	6.95	a	<i>Alnus glutinosa</i> - <i>Filipendula ulmaria</i> sub-community	w1d5 – Alder woodland on floodplains (BM: Wet woodland)
W6	<i>Alnus glutinosa</i>-<i>Urtica dioica</i> woodland – Community typically dominated by alder <i>A. glutinosa</i> with an open shrub layer. Ground flora with common nettle <i>U. dioica</i> as constant.	5.00	a	typical sub-community	w1d – Wet woodland/ w1d5 – Alder woodland on floodplains (BM: Wet woodland)
W7	<i>Alnus glutinosa</i>-<i>Fraxinus excelsior</i>-<i>Lysimachia nemorum</i> woodland – Canopy with alder <i>A. glutinosa</i> the most common species but with ash <i>F. excelsior</i> typically present. Ground flora is typically varied with an abundance of tall swamp and/or fen species.	3.29	a	<i>Urtica dioica</i> sub-community	w1d5 – Alder woodland on floodplains (BM: Wet woodland)
W8	<i>Fraxinus excelsior</i>-<i>Acer campestre</i>-<i>Mercurialis perennis</i> woodland – Canopy with ash <i>F. excelsior</i> present with abundance of species such as elm <i>Ulmus spp.</i> and lime <i>Tilia spp.</i> as local dominants. Enclosed habitats with dog's mercury <i>M.</i>	11.11	c	<i>Deschampsia cespitosa</i> sub-community	w1b6 – Other upland mixed ashwoods/w1f7 – Other lowland mixed deciduous woodland/w1g7 – Other broadleaved woodland types (BM:
			e	<i>Geranium robertianum</i> sub-community	

NVC code	Community description	Total area (ha)	Sub-communities identified	Sub-community description	Associated UKHab/BNG classification
	<i>perennis</i> constant within ground flora.				Upland mixed ashwoods/ Lowland mixed deciduous woodland/ Other woodland; broadleaved)
W9	<i>Fraxinus excelsior-Sorbus aucuparia-Mercurialis perennis</i> woodland – Canopy with ash <i>F. excelsior</i> , wych elm <i>Ulmus glabra</i> , sycamore <i>Acer pseudoplatanus</i> , and sessile oak <i>Quercus petraea</i> . Ground flora with dog's mercury <i>M. perennis</i> as constant, supported by an abundance of ferns and bryophytes.	17.80	a	typical sub-community	w1b6 – Other upland mixed ashwoods.
W10	<i>Quercus robur-Pteridium aquilinum-Rubus fruticosus</i> woodland – Canopy with oak <i>Quercus sp.</i> as constant with frequent birch <i>Betula sp.</i> Sycamore <i>Acer pseudoplatanus</i> and wych elm <i>Ulmus glabra</i> in the northwest. Bluebell <i>Hyacinthoides non-scripta</i> and wood anemone <i>Anemone nemorosa</i> are spring dominants, with bramble <i>R. fruticosus</i> and bracken <i>Pteridium aquilinum</i> more abundant in summer.	8.42	a	typical sub-community	w1f7 – Other lowland mixed deciduous woodland/w1g7 – Other broadleaved woodland types (BM: Lowland mixed deciduous woodland/ Other woodland; broadleaved)
			c	<i>Hedera helix</i> sub-community	
			d	<i>Holcus lanatus</i> sub-community	
			e	<i>Acer pseudoplatanus-Oxalis acetosella</i> sub-community	
W11	<i>Quercus petraea-Betula pubescens-Oxalis acetosella</i> woodland – Canopy typically with sessile oak <i>Q. petraea</i>	2.33	N/A	N/A	w1f7 – Other lowland mixed deciduous woodland

NVC code	Community description	Total area (ha)	Sub-communities identified	Sub-community description	Associated UKHab/BNG classification
	and/or downy birch <i>B. pubescens</i> . Ground flora is typically grassy with the presence of bluebell <i>Hyacinthoides non-scripta</i> , however can be dominated by bracken <i>Pteridium aquilinum</i> by mid-summer.				
W21	<i>Crataegus monogyna</i> – <i>Hedera helix scrub</i> – Woody scrub vegetation with hawthorn <i>C. monogyna</i> typically frequent with a mix of other woody species.	0.91	N/A	N/A	h3h – Mixed scrub
NR	No recognisable NVC community – This classification was applied to all habitats for which the species composition did not match any defined NVC classification. In the survey area this typically related to plantation woodlands, however some grassland and fen-type habitats were also classified within this.	88.08	N/A	N/A	N/A

Habitats of Principal Importance

Seven different Habitats of Principal Importance (HoPI) were identified within the survey sites over the entire A66 route. Priority habitats included: lowland fens, lowland meadows, lowland heathland, reedbeds, lowland mixed deciduous woodland, wet woodland and upland mixed ashwoods. All areas of HoPI identified within each scheme are detailed in Table 5: Habitats of Principal Importance identified within the survey sites.

Table 5: Habitats of Principal Importance identified within the survey sites

Site ref	Habitat ref	NVC habitat	Priority habitat	Area (ha)	NGR	Scheme
16	1	W9a	Upland mixed ashwoods	1.74	NY5133628150	M6 Junction 40 to Kemplay Bank

Site ref	Habitat ref	NVC habitat	Priority habitat	Area (ha)	NGR	Scheme
31	1	W9	Upland mixed ashwoods	0.78	NY5071228296	M6 Junction 40 to Kemplay Bank
4	1	W8	Upland mixed ashwoods	0.97	NY5944928660	Penrith to Temple Sowerby
6	1	W6a	Wet woodland	1.97	NY5509928584	Penrith to Temple Sowerby
27	2	W6a	Wet woodland	0.28	NY5829428849	Penrith to Temple Sowerby
41	1	W11	Lowland mixed deciduous woodland	2.08	NY5606529137	Penrith to Temple Sowerby
60	1	W6	Wet woodland	0.91	NY5517929354	Penrith to Temple Sowerby
61	1	W6	Wet woodland	1.45	NY5492529125	Penrith to Temple Sowerby
63	1	NR	Lowland mixed deciduous woodland	3.27	NY5250928815	Penrith to Temple Sowerby
63	4	NR	Lowland mixed deciduous woodland	0.68	NY5242729199	Penrith to Temple Sowerby
5	1	W10e	Lowland mixed deciduous woodland	2.76	NY6748420993	Temple Sowerby to Appleby
10	1	W8c/W8e/W9a	Upland mixed ashwoods	3.68	NY6752821268	Temple Sowerby to Appleby
13	1	W8	Upland mixed ashwoods	4.59	NY6699621675	Temple Sowerby to Appleby
18	1	W2a	Wet woodland	6.95	NY6159927028	Temple Sowerby to Appleby
67	2	S28	Lowland fens	0.91	NY6232626938	Temple Sowerby to Appleby
1	1	S9	Lowland fens	8.38	NY7696415433	Appleby to Brough
1	1	M23a	Lowland fens	8.38	NY7696415433	Appleby to Brough
1	3	M23a	N/A	6.30	NY7646615437	Appleby to Brough
8	1	MG4c	Lowland meadows	0.38	NY7438916685	Appleby to Brough
19	1	M27c	Lowland fens	2.96	NY7360117171	Appleby to Brough
19	2	NR	Wet woodland	0.77	NY7365117080	Appleby to Brough
22	2	W1	Wet woodland	0.09	NY7343216750	Appleby to Brough

Site ref	Habitat ref	NVC habitat	Priority habitat	Area (ha)	NGR	Scheme
37	1	W7a	Wet woodland	3.29	NY7510715688	Appleby to Brough
55	1	S6	Lowland fens	0.09	NY7661515012	Appleby to Brough
55	4	S6	Lowland fens	0.11	NY7671815072	Appleby to Brough
57	5	M27	Lowland fens	0.04	NY7427416217	Appleby to Brough
57	5	MG9	Lowland fens	0.04	NY7427416217	Appleby to Brough
57	6	M27c	Lowland fens	1.31	NY7453016088	Appleby to Brough
58	1	M25c	Lowland fens	1.95	NY7222917359	Appleby to Brough
58	1	M27	Lowland fens	1.95	NY7312816831	Appleby to Brough
58	1	S4	Reedbeds	1.95	NY7312816831	Appleby to Brough
58	2	W1e	Wet woodland	1.11	NY7240317317	Appleby to Brough
58	5	W6	Wet woodland	0.39	NY7260917302	Appleby to Brough
58	6	M25c	Lowland fens	2.87	NY7264417194	Appleby to Brough
58	8	M23a	Lowland fens	3.16	NY7299016970	Appleby to Brough
58	9	NR	Lowland fens	0.77	NY7301616951	Appleby to Brough
58	13	M23a	Lowland fens	1.42	NY7320816805	Appleby to Brough
58	14	M23a	Lowland fens	0.39	NY7332316769	Appleby to Brough
59	1	H1e	Lowland heathland	11.85	NY7197018380	Appleby to Brough
69	1	NR	Lowland mixed deciduous woodland	3.07	NY7795615007	Appleby to Brough
69	3	NR	Lowland mixed deciduous woodland	0.50	NY7778615035	Appleby to Brough
49	1	W9a	Upland mixed ashwoods	4.93	NZ0465914117	Bowes Bypass
53	1	W9a	Upland mixed ashwoods	1.78	NY9908313285	Bowes Bypass
53	2	W11	Lowland mixed deciduous woodland	0.25	NY9906513271	Bowes Bypass
37	1	W7a	Wet woodland	3.29	NY7510715688	Appleby to Brough
58	2	W1e	Wet woodland	1.11	NY7240317317	Appleby to Brough
58	5	W6	Wet woodland	0.39	NY7260917302	Appleby to Brough
53	2	W11	Lowland mixed deciduous woodland	0.25	NY9906513271	Bowes Bypass
49	1	W9a	Upland mixed ashwoods	4.94	NZ0465914117	Bowes Bypass

Site ref	Habitat ref	NVC habitat	Priority habitat	Area (ha)	NGR	Scheme
53	1	W9a	Upland mixed ashwoods	1.78	NY9908313285	Bowes Bypass
21	1	W8e	Lowland mixed deciduous woodland	0.92	NZ0824213613	Cross Lanes to Rokeby
21	2	W10a	Lowland mixed deciduous woodland	0.41	NZ0832413496	Cross Lanes to Rokeby
34	1	W8e	Lowland mixed deciduous woodland	0.95	NZ0763513854	Cross Lanes to Rokeby
34	3	W10e	Lowland mixed deciduous woodland	0.92	NZ0793613798	Cross Lanes to Rokeby
44	1	W9a	Upland mixed ashwoods	2.91	NZ0698114131	Cross Lanes to Rokeby
46	1	W9a	Upland mixed ashwoods	1.98	NZ0508513385	Cross Lanes to Rokeby
26	2	S26a	Lowland fens (in transitional stage developing from 'wet' other neutral grassland)	2.13	NZ1215910363	Stephen Bank to Carkin Moor
26	3	M27	Lowland fens (in transitional stage developing from 'wet' other neutral grassland)	4.13	NZ1199410363	Stephen Bank to Carkin Moor
68	3	M23	Lowland Fens	0.08	NZ1615608593	Stephen Bank to Carkin Moor

Habitats that conform to H91E0 Alluvial Forests Annex 1 habitat

Habitats that conformed to Annex 1 habitat type was identified within the survey sites. This pertained to H91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*). These habitats are defined by woodland areas dominated by alder and willow on flood plains with well-established characteristic ground-flora including at least one target species, and a further six positive indicator species²⁴. However, no habitat that

²⁴ O'Neill, F.H. & Barro, S.J. (2013) Results of a monitoring survey of old sessile oak woods and alluvial forests. Irish Wildlife Manuals, No. 71. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland

conforms to H91E0 Alluvial Forests was identified within the River Eden SAC boundary during the NVC survey undertaken.

Table 6: Habitats that conform to H91E0 Alluvial Forests

Site ref	Habitat ref	NVC habitat	Area (ha)	NGR	Scheme
6	1	W6a - <i>Alnus glutinosa-Urtica dioica</i> woodland, typical sub-community	1.97	NY5509928584	Penrith to Temple Sowerby
27	2	W6a - <i>Alnus glutinosa-Urtica dioica</i> woodland, typical sub-community	0.28	NY5829428849	Penrith to Temple Sowerby
60	1	W6 - <i>Alnus glutinosa-Urtica dioica</i> woodland	0.91	NY551792935	Penrith to Temple Sowerby
18	1	W2a - <i>Salix cinerea-Betula pubescens-Phragmites australis</i> woodland, <i>Alnus glutinosa-Filipendula ulmaria</i> sub-community	6.95	NY6159927028	Temple Sowerby to Appleby
37	1	W7a - <i>Alnus glutinosa-Fraxinus excelsior-Lysimachia nemorum</i> woodland, <i>Urtica dioica</i> sub-community	3.29	NY7510715688	Appleby to Brough

Additional areas of wet woodland have been identified within the survey sites (see Table 5: Habitats of Principal Importance identified within the survey sites). However, these areas of wet woodland were not considered to conform to H91E0 Alluvial Forest due to their relatively un-established nature (plantation woodland) and absence of positive indicator species within the ground flora.

Notable and protected botanical species

A total of 373 different botanical species were identified during the surveys. This included 17 notable and/or protected or invasive non-native species, either considered to be AWI or listed within Sch8 or 9 of the Wildlife and Countryside Act 1981 (as amended).

No nationally rare or scarce botanical species were identified or any species listed within the relevant local BAP. Table 7: Notable botanical species identified within the survey sites details the notable and protected or invasive species identified and their associated habitat location reference. The full species list is provided in Annex B: Raw NVC Data Tables.

Table 7: Notable botanical species identified within the survey sites

Common name	Scientific name	Designation	Site/habitat reference
Field Maple	<i>Acer campestre</i>	AWI	5.1; 48.1; 2.2; 20.1
Ramsons	<i>Allium ursinum</i>	AWI	16.1
Wood Anemone	<i>Anemone nemorosa</i>	AWI	53.2; 4.1
Lords-And-Ladies	<i>Arum maculatum</i>	AWI	21.2; 63.4; 2.1; 2.3; 31.2; 4.1; 13.1

Common name	Scientific name	Designation	Site/habitat reference
False-Brome	<i>Brachypodium sylvaticum</i>	AWI	13.1
Hairy-Brome	<i>Bromopsis ramosa</i>	AWI	5.1; 21.1; 34.2; 45.2; 49.1
Wood-Sedge	<i>Carex sylvatica</i>	AWI	43.1
Bearded Couch	<i>Elymus caninus</i>	AWI	5.1; 7.3; 29.1; 53.1; 6.1; 24.1; 44.2
Giant Fescue	<i>Festuca gigantea</i>	AWI	6.1
Woodruff	<i>Galium odoratum</i>	AWI	48.2
Himalayan Balsam	<i>Impatiens glandulifera</i>	Sch9	7.1; 10.1; 26.1; 26.2; 31.2; 71.1; 13.1; 43.1
Variegated Yellow Archangel	<i>Lamiaeum galeobdolon subsp. argentatum</i>	Sch9	2.3
Dog's Mercury	<i>Mercurialis perennis</i>	AWI	5.1; 5.2; 7.3; 21.1; 21.2; 26.1; 34.1; 34.3; 45.2; 48.1; 49.1; 53.1; 53.2; 53.3; 2.1; 16.1; 17.1; 23.1; 31.1; 31.2; 4.1; 13.1; 43.1; 44.1; 44.2; 46.1
Wood-Sorrel	<i>Oxalis acetosella</i>	AWI	10.1; 45.2; 6.1; 27.1; 30.1; 36.1
Wood Meadow-Grass	<i>Poa nemoralis</i>	AWI	13.1
Wood Speedwell	<i>Veronica montana</i>	AWI	2.2; 31.2; 30.1
Guelder-Rose	<i>Viburnum opulus</i>	AWI	49.1
Bluebell	<i>Hyacinthoides non-scripta</i>	AWI; Sch8	5.1; 5.2; 10.1; 55.11; 53.3; 63.4; 16.1; 17.1; 31.2; 6.1; 36.1; 63.1; 13.1; 43.1; 44.1; 44.2
Broad Leaved Helleborine	<i>Epipactis helleborine</i>	AWI	49.1
Rhododendron	<i>Rhododendron ponticum</i>	Sch9	37.1; 34.1; 63.4; 2.1; 17.1; 63.1; 43.1; 68.1

Black poplar is listed within the Durham BAP and was identified during surveys, however all incidences of these species were considered to be hybrid forms and did not represent the native species, which is considered a conservation priority.

Discussion

NVC surveys identified the presence of 28 different NVC communities ranging from heaths, mires, mesotrophic grasslands, open habitats, swamps and tall-herb fens, calcifugous grasslands and montane communities and woodland. The most abundant habitat type identified was M23 - *Juncus effusus/acuteiflorus-Galium palustre* rush-pasture, with over 19ha of habitat area identified. However, a far more significant proportion of habitats could not be classified to any NVC community (>88ha).

Of the habitats identified, seven different Habitats of Principal Importance (HoPI) were identified, including: lowland fens, lowland meadows, lowland heathland, reedbeds, lowland mixed deciduous woodland, wet woodland and upland mixed ashwoods. A total area of 129.70ha was recorded, the majority of which was located outside the Order Limits (See NVC Figures 1-15). These habitats are considered to be national conservation priorities and any impacts to them have been appropriately mitigated for within the ES Chapter 6 Biodiversity (Document Reference 3.2, APP-049), EMP (Document Reference 2.7, APP-019) and outline Environmental Mitigation Maps (Document Reference 2.8, APP-041) .

Habitats that conform to H91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) were recorded at five different locations and comprising four different NVC communities/sub-communities. Any impacts to these have been appropriately mitigated for within the ES Chapter 6 Biodiversity (Document Reference 3.2, APP-049), EMP (Document Reference 2.7, APP-019) and outline Environmental Mitigation Maps (Document Reference 2.8, APP-041).

No rare or scarce botanical species were identified during the surveys. However, a number of invasive non-native species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were observed and recorded. Control and the prevention of the spread of these species have been included within the Invasive Non-Native Species Management Plan (Document Reference 2.7, APP-035).

In addition to this, a single species (bluebell) protected under Schedule 8 of the Wildlife and Countryside Act was also identified. This species is protected from deliberate picking and/or uprooting for the purposes of trade.

It is therefore concluded that while the NVC survey results provide additional detail to substantiate the assessment and mitigation design submitted as part of the DCO application, the survey results do not alter the significant effects identified or conclusions presented.

It is considered that the NVC classifications provided in this report are accurate at the time of survey. It should be noted that habitats are subject to constant change in management and environmental conditions. As a result, the communities identified and botanical species present may differ should any future surveys be undertaken. However, land use is unlikely to change significantly in the absence of the Project and the overall habitats and species composition of the study area is expected to be broadly similar to that of the existing baseline.

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Annex A: NVC Survey Results Overview

Table 8: Overview of NVC survey results

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
1	1	f2a - Lowland fens	M23a - <i>Juncus effusus/acutiflorus-Galium palustre</i> rush-pasture; <i>Juncus acutiflorus</i> sub-community, S9 - <i>Carex rostrata</i> swamp type	Wetland - Fens (upland and lowland)	Yes	No	8.38	NY7696415433	Appleby to Brough
1	2	g3c5	MG6 - <i>Lolium perenne-Cynosurus cristatus</i> grassland type	Grassland - Other neutral grassland	No	No	3.07	NY7727715428	Appleby to Brough
1	3	f2a - Lowland fens, g1a6 - Other lowland dry acid grassland, g3c5 - Arrhenatherum neutral grassland	M23a - <i>Juncus effusus/acutiflorus-Galium palustre</i> rush-pasture; <i>Juncus acutiflorus</i> sub-community, U4b - <i>Festuca ovina-Agrostis capillaris-Galium saxatile</i> grassland; typical sub-community, MG6 - <i>Lolium perenne-Cynosurus cristatus</i> grassland type	Wetland - Fens (upland and lowland)	Yes	No	6.30	NY7646615437	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
1	4	w2c - Other coniferous woodland	No recognisable NVC community		No	No	4.25	NY7634115385	Appleby to Brough
2	1	w1h6 - Other woodland; mixed; mainly conifer	Plantation woodland with no recognisable NVC community - Understorey indicates possible historic presence of W9 woodland	Woodland and forest - Other woodland; mixed	No	No	0.47	NY5077328735	M6 Junction 40 to Kemplay Bank
2	2	w1h6 - Other woodland; mixed; mainly conifer	No recognisable NVC community - NVC analysis not considered necessary due to limited native species and obvious planting scheme	Woodland and forest - Other woodland; mixed	No	No	0.23	NY5082528727	M6 Junction 40 to Kemplay Bank
2	3	w1h6 - Other woodland; mixed; mainly conifer	Ornamental planted woodland - No recognisable canopy NVC community - No recognisable NVC subcommunity in field layer with occasional/rare presence of ferns and other woodland indicators may indicate historic W9 woodland	Woodland and forest - Other woodland; mixed	No	No	0.45	NY5086528791	M6 Junction 40 to Kemplay Bank

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			but no other significant indicators present						
3	1	g3c5, 16 17 - Arrhenatherum neutral grassland; tall ruderal/ephemeral	MG1a - <i>Arrhenatherum elatius</i> grassland, <i>Urtica dioica</i> sub-community	Grassland - Other neutral grassland	No	No	0.00	NY7339416794	Appleby to Brough
4	1	w1b6 - Other upland mixed ashwoods	W8 - <i>Fraxinus excelsior</i> - <i>Acer campestre</i> - <i>Mercurialis perennis</i> woodland type - subcommunity not distinctive, W8f closest match but no evidence of ramsons/wild garlic present	Woodland and forest - Upland mixed ashwoods	Yes	No	0.97	NY5944928660	Penrith to Temple Sowerby
5	1	w1f7 - Other lowland mixed deciduous woodland	W10e - <i>Quercus robur</i> - <i>Pteridium aquilinum</i> - <i>Rubus fruticosus</i> woodland, <i>Acer pseudoplatanus</i> - <i>Oxalis acetosella</i> sub-community	Woodland and forest - Lowland mixed deciduous woodland	Yes	No	2.76	NY6748420993	Temple Sowerby to Appleby
5	2	w1g7 - Other broadleaved woodland types	Developing W10d type - <i>Quercus robur</i> - <i>Pteridium aquilinum</i> - <i>Rubus fruticosus</i> woodland,	Woodland and forest - Other woodland; broadleaved	No	No	1.93	NY6735121271	Temple Sowerby to Appleby

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			<i>Holcus lanatus</i> sub-community						
6	1	w1d5 - Alder woodland on floodplains (H91E0) - Priority Habitat/Annex 1	W6a - <i>Alnus glutinosa-Urtica dioica</i> woodland, typical sub-community	Woodland and forest - Wet woodland	Yes	Yes	1.97	NY5509928584	Penrith to Temple Sowerby
6	3	g3c5 - Arrhenatherum neutral grassland	MG1 - <i>Arrhenatherum elatius</i> grassland	Grassland - Other neutral grassland	No	No	0.11	NY5498828748	Penrith to Temple Sowerby
7	1	g3c5 - Arrhenatherum neutral grassland	MG1 - <i>Arrhenatherum elatius</i> grassland	Grassland - Other neutral grassland	No	No	1.31	NY6545724170	Temple Sowerby to Appleby
7	2	g4 - Modified grassland	MG7a - <i>Lolium perenne</i> leys and related grasslands, <i>Lolium perenne-Trifolium repens</i> leys	Grassland - Modified grassland	No	No	0.65	NY6559924142	Temple Sowerby to Appleby
7	3	w1h6 - Other woodland; mixed; mainly conifer	No recognisable NVC community	Woodland and forest - Other woodland; mixed	No	No	1.31	NY6581924092	Temple Sowerby to Appleby
8	1	g3a5 - Lowland hay meadows	MG4c - <i>Alopecurus pratensis-Sanguisorba officinalis</i> grassland (some tendency towards MG1c - <i>Arrhenatherum elatius</i> grassland, <i>Filipendula ulmaria</i> sub-	Grassland - Lowland meadows	Yes	No	0.38	NY7438916685	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			<i>community, particularly around margins)</i>						
8	2	g3c, 14 - Other neutral grassland with scattered rushes	No recognisable NVC community		No	No	1.13	NY7429616785	Appleby to Brough
9	1	g3c5 - Arrhenatherum neutral grassland	MG1e - <i>Arrhenatherum elatius</i> grassland, <i>Centaurea nigra</i> sub-community	Grassland - Other neutral grassland	No	No	0.01	NY5133728895	M6 Junction 40 to Kemplay Bank
10	1	w1b6 - Other upland mixed ashwoods	W8c/W8e/W9a - Difficult to distinguish between types due to un-established ground-flora	Woodland and forest - Upland mixed ashwoods	Yes	No	3.68	NY6752821268	Temple Sowerby to Appleby
11	1	g4 - Modified grassland	No recognisable NVC community - potentially MG6a in absence of butterbur based on surrounding habitats	Grassland - Modified grassland	No	No	0.08	NY7844715365	Appleby to Brough
11	2	g4 - Modified grassland	MG6 - <i>Lolium perenne-Cynosurus cristatus</i> grassland, typical sub-community	Grassland - Other neutral grassland	No	No	0.09	NY7843115312	Appleby to Brough
12	1	g4 - Modified grassland	MG7a - <i>Lolium perenne</i> leys and related grasslands; <i>Lolium perenne-Trifolium repens</i> leys	Grassland - Modified grassland	No	No	0.41	NY5842828887	Penrith to Temple Sowerby

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
12	2	g4 - Modified grassland	MG7-type. Community developed from arable in early stages of succession - Community not distinctive but MG7 is best fit	Grassland - Modified grassland	No	No	1.00	NY5881628892	Penrith to Temple Sowerby
13	1	w1b - Upland mixed ashwoods	W8 - <i>Fraxinus excelsior</i> - <i>Acer campestre</i> - <i>Mercurialis perennis</i> woodland. No distinct sub-community	Woodland and forest - Upland mixed ashwoods	Yes	No	4.59	NY6699621675	Temple Sowerby to Appleby
14	1	u1b, 17 - Urban - Ruderal/Ephemeral	No recognisable NVC community	Urban - Bare/Vacant ground	No	No	0.19	NY7347417490	Appleby to Brough
14	2	w1h6 - Other woodland; mixed; mainly conifer	No recognisable NVC community	Woodland and forest - Other woodland; mixed	No	No	0.12	NY7365117391	Appleby to Brough
14	3	g3c5 - Arrhenatherum neutral grassland	MG1b - <i>Arrhenatherum elatius</i> grassland, <i>Urtica dioica</i> sub-community - W11 type woodland may develop over time from planting scheme	Grassland - Other neutral grassland	No	No	0.58	NY7349017461	Appleby to Brough
14	4	w2b - Other Scot's Pine woodland	No recognisable NVC community. W18 type but outside of Scotland (native range)	Woodland and forest - Other Scot's Pine woodland	No	No	0.17	NY7343617399	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
14	5	g3c - Other neutral grassland	MG9b - <i>Holcus lanatus-Deschampsia cespitosa</i> grassland, <i>Arrhenatherum elatius</i> sub-community	Grassland - Other neutral grassland	No	No	1.55	NY7352917404	Appleby to Brough
15	1	g3c5 - Arrhenatherum neutral grassland	MG1 - <i>Arrhenatherum elatius</i> grassland; sub-community not distinctive	Grassland - Other neutral grassland	No	No	0.03	NY7342116736	Appleby to Brough
16	1	w1b6 - Other upland mixed ashwoods	W9a <i>Fraxinus excelsior</i> – <i>Sorbus aucuparia</i> – <i>Mercurialis perennis</i> woodland - Typical sub-community	Woodland and forest - Upland mixed ashwoods	Yes	No	1.74	NY5133628150	M6 Junction 40 to Kemplay Bank
17	1	w1h5 - Other woodland; mixed; mainly broadleaved	No recognisable canopy NVC community - Understory: W8e: <i>Geranium robertianum</i> sub-community indicating possible historic woodland community	Woodland and forest - Other woodland; mixed	No	No	0.96	NY5109028601	M6 Junction 40 to Kemplay Bank
18	1	w1d5 - Alder woodland on floodplains (H91E0) - Priority Habitat/Annex 1	W2a - <i>Salix cinerea-Betula pubescens-Phragmites australis</i> woodland, <i>Alnus glutinosa-Filipendula ulmaria</i> sub-community	Woodland and forest - Wet woodland	Yes	Yes	6.95	NY6159927028	Temple Sowerby to Appleby

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
19	1	f2a, 14 16 - Lowland fens; Scattered rushes; Tall herb	M27c - <i>Filipendula ulmaria-Angelica sylvestris</i> mire; <i>Juncus effusus-Holcus lanatus</i> sub-community	Wetland - Fens (upland and lowland)	Yes	No	2.96	NY7360117171	Appleby to Brough
19	2	w1d - Wet woodland	Plantation and NVC not currently applicable but of W5-W7 type	Woodland and forest - Wet woodland	Yes	No	0.77	NY7365117080	Appleby to Brough
20	1	g3c5 - Other Neutral Grassland	MG1b - <i>Arrhenatherum elatius</i> grassland; <i>Urtica dioica</i> sub-community	Grassland - Other neutral grassland	No	No	0.41	NY5909228650	Penrith to Temple Sowerby
21	1	w1g7 - Other broadleaved woodland types	Developing W8e type woodland - <i>Fraxinus excelsior-Acer campestre-Mercurialis perennis</i> woodland, <i>Geranium robertianum</i> sub-community - not yet established however	Woodland and forest - Lowland mixed deciduous woodland	Yes	No	0.92	NZ0824213613	Cross Lanes to Rokeby
21	2	w1f - Lowland mixed deciduous woodland	W10a - <i>Quercus robur-Pteridium aquilinum-Rubus fruticosus</i> woodland, typical sub-community	Woodland and forest - Lowland mixed deciduous woodland	Yes	No	0.41	NZ0832413496	Cross Lanes to Rokeby
22	1	g3c5 - Arrhenatherum neutral grassland	MG1c - <i>Arrhenatherum elatius</i> grassland, <i>Filipendula ulmaria</i> sub-community	Grassland - Other neutral grassland	No	No	0.02	NY7346116715	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
22	2	w1d - wet woodland - developing Priority Habitat	Developing W1 type woodland - <i>Salix cinerea-Galium palustre</i> woodland	Woodland and forest - Wet woodland	Yes	No	0.09	NY7343216750	Appleby to Brough
22	3	g3c5 - Arrhenatherum neutral grassland	MG1b - <i>Arrhenatherum elatius</i> grassland, <i>Urtica dioica</i> sub-community	Grassland - Other neutral grassland	No	No	0.01	NY7340416787	Appleby to Brough
23	1	h3h - Mixed scrub	No recognisable NVC community present - W21 type scrub dominant with scattered mature trees - <i>Salix</i> sp. abundant however	Heathland and shrub - Mixed scrub	No	No	0.96	NY5059929056	M6 Junction 40 to Kemplay Bank
24	1	w1h5 - Other woodland; mixed; mainly broadleaved	No recognisable NVC community	Woodland and forest - Other woodland; mixed	No	No	3.78	NY5280529398	Penrith to Temple Sowerby
25	1	g3c5 - Arrhenatherum neutral grassland	MG1 - <i>Arrhenatherum elatius</i> grassland; sub-community not distinctive	Grassland - Other neutral grassland	No	No	0.48	NY5481628987	Penrith to Temple Sowerby
26	1	g3c - Other neutral grassland	OV26d - <i>Epilobium hirsutum</i> community, <i>Arrhenatherum elatius-Heracleum sphondylium</i> sub-community	Grassland - Other neutral grassland	Yes	No	0.69	NZ1215010258	Stephen Bank to Carkin Moor

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
26	2	f2a - Lowland fens (in transitional stage developing from 'wet' other neutral grassland) - Priority Habitat	S26a - <i>Phragmites australis-Urtica dioica</i> tall-herb fen, <i>Filipendula ulmaria</i> sub-community	Wetland - Fens (upland and lowland)	Yes	No	2.13	NZ1215910363	Stephen Bank to Carkin Moor
26	3	f2a - Lowland fens (in transitional stage developing from 'wet' other neutral grassland) - Priority Habitat	M27 - <i>Filipendula ulmaria-Angelica sylvestris</i> mire; sub-community not distinctive	Wetland - Fens (upland and lowland)	Yes	No	4.13	NZ1199410363	Stephen Bank to Carkin Moor
27	1	w2c - Other coniferous woodland	No recognisable NVC community. Ground flora with some marshy elements but not distinctive to define historic land use	Woodland and forest - Other coniferous woodland	No	No	1.04	NY5825328819	Penrith to Temple Sowerby
27	2	w1d5 - Alder woodland on floodplains (H91E0) - Priority Habitat/Annex 1	W6a - <i>Alnus glutinosa-Urtica dioica</i> woodland, typical sub-community	Woodland and forest - Wet woodland	Yes	Yes	0.28	NY5829428849	Penrith to Temple Sowerby
28	1	g3c5 - Arrhenatherum neutral grassland	MG1b - <i>Arrhenatherum elatius</i> grassland, <i>Urtica dioica</i> sub-community	Grassland - Other neutral grassland	No	No	0.06	NY7337216758	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
29	1	g3c5 - Arrhenatherum neutral grassland	MG1 - <i>Arrhenatherum elatius</i> grassland; sub-community not distinctive	Grassland - Other neutral grassland	No	No	0.09	NY7553215438	Appleby to Brough
29	3	g3c5 - Arrhenatherum neutral grassland	MG1e - <i>Arrhenatherum elatius</i> grassland, <i>Centaurea nigra</i> sub-community	Grassland - Other neutral grassland	No	No	0.23	NY7556715459	Appleby to Brough
30	1	w2b - Other Scot's Pine woodland	No recognisable NVC community - closest fit W18 but man-made version outside of Scotland so does not fit classification	Woodland and forest - Other Scot's Pine woodland	No	No	4.94	NY5716628057	Penrith to Temple Sowerby
30	2	g3c5 - Arrhenatherum neutral grassland	MG1 - <i>Arrhenatherum elatius</i> grassland; sub-community not distinctive	Grassland - Other neutral grassland	No	No	0.34	NY5717228193	Penrith to Temple Sowerby
31	1	w1b6 - Other upland mixed ashwoods - Priority Habitat	W9 <i>Fraxinus excelsior</i> – <i>Sorbus aucuparia</i> – <i>Mercurialis perennis</i> woodland	Woodland and forest - Upland mixed ashwoods	Yes	No	0.78	NY5071228296	M6 Junction 40 to Kemplay Bank
31	2	w1h5 - Other woodland; mixed; mainly broadleaved	No recognisable NVC community present - Presence of dog's mercury in understorey indicates W8/W9 type woodland but canopy	Woodland and forest - Other woodland; mixed	No	No	3.05	NY5074928498	M6 Junction 40 to Kemplay Bank

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			structure affected by estate planting scheme						
32	1	w1h - Other woodland; mixed	Woodland; no clear NVC community because plantation	Woodland and forest - Other woodland; mixed	No	No	1.59	NY5824828559	Penrith to Temple Sowerby
33	1	g3c5 - Arrhenatherum neutral grassland	MG1 - <i>Arrhenatherum elatius</i> grassland; sub-community not distinctive	Grassland - Other neutral grassland	No	No	0.76	NY5224428966	Penrith to Temple Sowerby
34	1	w1f7 - Other Lowland mixed deciduous woodland - Priority Habitat	W8e - <i>Fraxinus excelsior-Acer campestre-Mercurialis perennis</i> woodland, <i>Geranium robertianum</i> sub-community	Woodland and forest - Lowland mixed deciduous woodland	Yes	No	0.95	NZ0763513854	Cross Lanes to Rokeby
34	2	g3c5 - Arrhenatherum neutral grassland	MG1 - <i>Arrhenatherum elatius</i> grassland; sub-community not distinctive	Grassland - Other neutral grassland	No	No	0.80	NZ0761513781	Cross Lanes to Rokeby
34	3	w1f7 - Other Lowland mixed deciduous woodland - Priority Habitat	W10e - <i>Quercus robur-Pteridium aquilinum-Rubus fruticosus</i> woodland, <i>Acer pseudoplatanus-Oxalis acetosella</i> sub-community	Woodland and forest - Lowland mixed deciduous woodland	Yes	No	0.92	NZ0793613798	Cross Lanes to Rokeby
35	N/A	MOD Land - Access not granted	MOD Land - Access not granted	N/A	No	No	N/A	NY7558016053	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
36	1	w2b - Other Scot's Pine woodland	No recognisable NVC community - closest fit W18 but man-made version outside of Scotland so does not fit classification	Woodland and forest - Other Scot's Pine woodland	No	No	7.14	NY6012227277	Penrith to Temple Sowerby
37	1	w1d5 - Alder woodland on floodplains (H91E0) - Priority Habitat/Annex 1	W7a - <i>Alnus glutinosa-Fraxinus excelsior-Lysimachia nemorum</i> woodland, <i>Urtica dioica</i> sub-community	Woodland and forest - Wet woodland	Yes	Yes	3.29	NY7510715688	Appleby to Brough
38	1	w1h5 - Other woodland; mixed; mainly broadleaved	No recognisable NVC community - developing W8 type woodland but not yet established	Woodland and forest - Other woodland; mixed	No	No	1.02	NZ2149705291	A1(M) Junction 53 Scotch Corner
39	N/A	MOD Land - Access not granted	MOD Land - Access not granted	N/A	No	No	N/A	NY7555916065	Appleby to Brough
40	1	w1g7 - Other broadleaved woodland types	No recognisable NVC community - developing W8/W9 type woodland from canopy composition and understorey - but not yet established, ground flora not distinctive	Woodland and forest - Other woodland; broadleaved	No	No	0.38	NY5438128971	Penrith to Temple Sowerby
40	2	g3c5 - Arrhenatherum neutral grassland	MG1a - <i>Arrhenatherum elatius</i> grassland;	Grassland - Other neutral grassland	No	No	0.47	NY5451328963	Penrith to Temple Sowerby

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			<i>Festuca rubra</i> sub-community						
41	1	w1f7 - Other lowland mixed deciduous woodland - Priority Habitat	W11 - <i>Quercus petraea</i> - <i>Betula pubescens</i> - <i>Oxalis acetosella</i> woodland; sub-community not distinctive from surveyable area	Woodland and forest - Lowland mixed deciduous woodland	Yes	No	2.08	NY5606529137	Penrith to Temple Sowerby
42	1	g3c5, 11 58 - Arrhenatherum neutral grassland; Scattered scrub; Grazed	MG1b - <i>Arrhenatherum elatius</i> grassland; <i>Urtica dioica</i> sub-community is best fit for this habitat	Grassland - Other neutral grassland	No	No	1.25	NY5576529265	Penrith to Temple Sowerby
43	1	w1h - Other woodland; mixed	N/A - plantation	Woodland and forest - Other woodland; mixed	No	No	18.24	NZ0752213257	Cross Lanes to Rokeby
44	1	w1b6 - Other upland mixed ashwoods	W9a - <i>Fraxinus excelsior</i> - <i>Sorbus aucuparia</i> - <i>Mercurialis perennis</i> woodland; typical sub-community	Woodland and forest - Upland mixed ashwoods	Yes	No	2.91	NZ0698114131	Cross Lanes to Rokeby
44	2	w1h6 - Other woodland; mixed; mainly conifer	No recognisable NVC community	Woodland and forest - Other woodland; mixed	No	No	0.75	NZ0661414093	Cross Lanes to Rokeby
45	1	w2c - Other coniferous woodland	No recognisable NVC community. Bare understorey with only a rare abundance of ferns	Woodland and forest - Other coniferous woodland	No	No	2.28	NZ0587014067	Cross Lanes to Rokeby

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			as woodland indicator species						
45	2	w2b - Other Scot's Pine woodland	No recognisable canopy NVC community; ground flora indicates potential historic W9 woodland type	Woodland and forest - Other Scot's Pine woodland	No	No	3.87	NZ0597114074	Cross Lanes to Rokeby
46	1	w1f7 - Other lowland mixed deciduous woodland	W9a - <i>Fraxinus excelsior-Sorbus aucuparia-Mercurialis perennis</i> woodland; typical sub-community in north tending towards W10c - <i>Quercus robur-Pteridium aquilinum-Rubus fruticosus</i> woodland; <i>Hedera helix</i> sub-community in south	Woodland and forest - Upland mixed ashwoods	Yes	No	1.98	NZ0508513385	Cross Lanes to Rokeby
47	1	g4 - Modified grassland	NVC not applicable	Grassland - Modified grassland	No	No	4.51	NZ0450213454	Bowes Bypass
48	1	h3h - Mixed scrub	W21 <i>Crataegus monogyna-Hedera helix</i> scrub	Heathland and shrub - Mixed scrub	No	No	0.91	NZ0514013838	Cross Lanes to Rokeby
48	2	w1g7 - Other broadleaved woodland types	W10 - <i>Quercus robur-Pteridium aquilinum-Rubus fruticosus</i> woodland - Sub-	Woodland and forest - Other woodland; broadleaved	No	No	2.40	NZ0502314368	Cross Lanes to Rokeby

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			community not distinctive						
49	1	w1b - Upland mixed ashwoods - Priority Habitat	W9a - <i>Fraxinus excelsior-Sorbus aucuparia-Mercurialis perennis</i> woodland, typical sub-community	Woodland and forest - Upland mixed ashwoods	Yes	No	4.93	NZ0465914117	Bowes Bypass
49	2	f2d - Aquatic marginal vegetation	OV26a - <i>Epilobium hirsutum</i> community, <i>Juncus effusus-Ranunculus repens</i> sub-community	Lakes - Ponds (Non- Priority Habitat)	No	No	0.36	NZ0468414288	Bowes Bypass
50	1	g3c - Other neutral grassland	MG6b - <i>Lolium perenne-Cynosurus cristatus</i> grassland; <i>Anthoxanthum odoratum</i> sub-community	Grassland - Other neutral grassland	No	No	2.66	NZ0458313897	Bowes Bypass
51	1	g3c - Other neutral grassland	MG6a - <i>Lolium perenne-Cynosurus cristatus</i> grassland, typical sub-community	Grassland - Other neutral grassland	No	No	0.13	NY9930213760	Bowes Bypass
52	1	g4 - Modified grassland	MG7 - <i>Lolium perenne</i> leys and related grasslands; sub-community not distinctive	Grassland - Modified grassland	No	No	0.72	NY9933413903	Bowes Bypass
52	2	g4 - Modified grassland	MG10a - <i>Holcus lanatus-Juncus effusus</i> rush-	Grassland - Other neutral grassland	No	No	0.72	NY9933413903	Bowes Bypass

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			pasture, typical sub-community						
53	1	w1b - Upland mixed ashwoods	W9a - <i>Fraxinus excelsior-Sorbus aucuparia-Mercurialis perennis</i> woodland, typical sub-community	Woodland and forest - Upland mixed ashwoods	Yes	No	1.78	NY9908313285	Bowes Bypass
53	2	w1f7 - Other lowland mixed deciduous woodland	W11 - <i>Quercus petraea-Betula pubescens-Oxalis acetosella</i> woodland; subcommunity not distinctive	Woodland and forest - Lowland mixed deciduous woodland	Yes	No	0.25	NY9906513271	Bowes Bypass
53	3	w1g7 - Other broadleaved woodland types	No recognisable NVC community due to planted beech composition - ground flora indicates historic W9 type woodland	Woodland and forest - Other woodland; broadleaved	No	No	1.44	NY9927813196	Bowes Bypass
54	1	g1b6 - Other upland acid grassland	U5a - <i>Nardus stricta-Galium saxatile</i> grassland; species-poor sub-community	Grassland - Upland acid grassland	No	No	5.52	NY9842813711	Bowes Bypass
55	1	f2a - Lowland fens - Priority Habitat	S6 - <i>Carex riparia</i> swamp	Wetland - Fens (upland and lowland)	Yes	No	0.09	NY7661515012	Appleby to Brough
55	2	g3c - Other neutral grassland	MG9b - <i>Holcus lanatus-Deschampsia cespitosa</i> grassland,	Grassland - Other neutral grassland	No	No	0.99	NY7668115007	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			<i>Arrhenatherum elatius</i> sub-community						
55	3	f2d - Aquatic marginal vegetation	OV26c - <i>Epilobium hirsutum</i> community, <i>Filipendula ulmaria</i> - <i>Angelica sylvestris</i> sub-community	Other rivers and streams	No	No	0.17	NY7667915034	Appleby to Brough
55	4	f2a - Lowland fens - Priority Habitat	S6 - <i>Carex riparia</i> swamp	Wetland - Fens (upland and lowland)	Yes	No	0.11	NY7671815072	Appleby to Brough
55	5	g3c - Other neutral grassland	M13 - <i>Schoenus nigricans</i> - <i>Juncus subnodulosus</i> mire - subcommunity not distinctive	Grassland - Other neutral grassland	No	No	0.01	NY7670715093	Appleby to Brough
55	6	g3c - Other neutral grassland	MG9b - <i>Holcus lanatus</i> - <i>Deschampsia cespitosa</i> grassland, <i>Arrhenatherum elatius</i> sub-community	Grassland - Other neutral grassland	No	No	1.62	NY7670515084	Appleby to Brough
55	7	g4 - Modified grassland	MG6b - <i>Lolium perenne</i> - <i>Cynosurus cristatus</i> grassland, <i>Anthoxanthum odoratum</i> sub-community	Grassland - Modified grassland	No	No	0.93	NY7674715200	Appleby to Brough
55	8	g3c8 - <i>Holcus</i> - <i>Juncus</i> neutral grassland	MG10a - <i>Holcus lanatus</i> - <i>Juncus effusus</i> rush-	Grassland - Other neutral grassland	No	No	0.13	NY7680615056	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			pasture, typical sub-community						
55	9	g3c - Other neutral grassland	M13a - <i>Schoenus nigricans</i> - <i>Juncus subnodulosus</i> mire, <i>Festuca rubra</i> - <i>Juncus acutiflorus</i> sub-community	Grassland - Other neutral grassland	No	No	0.09	NY7682015074	Appleby to Brough
55	10	g4 - Modified grassland	MG6 - <i>Lolium perenne</i> - <i>Cynosurus cristatus</i> grassland - Sub-community not distinctive	Grassland - Modified grassland	No	No	0.08	NY7683715060	Appleby to Brough
55	11	g3c5 - Arrhenatherum neutral grassland	MG1c - <i>Arrhenatherum elatius</i> grassland, <i>Filipendula ulmaria</i> sub-community	Grassland - Other neutral grassland	No	No	0.03	NY7679315080	Appleby to Brough
56	N/A	MOD Land - Access not granted	MOD Land - Access not granted	N/A	No	No	N/A	NY7503516512	Appleby to Brough
57	1	r2b, 191 - Other rivers and streams	Not well defined. M23 - <i>Juncus effusus</i> / <i>acutiflorus</i> - <i>Galium palustre</i> rush-pasture/M27 - <i>Filipendula ulmaria</i> - <i>Angelica sylvestris</i> mire type	Wetland - Fens (upland and lowland)	No	No	0.01	NY7450216218	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
57	2	g3c - Other neutral grassland	MG9 - <i>Holcus lanatus-Deschampsia cespitosa</i> grassland	Grassland - Other neutral grassland	No	No	2.51	NY7443516249	Appleby to Brough
57	3	g3c - Other neutral grassland	Ill-defined, reflecting limited extent and surrounding land-use. MG1c - <i>Arrhenatherum elatius</i> grassland; <i>Filipendula ulmaria</i> sub-community probably best fit	Grassland - Other neutral grassland	No	No	0.10	NY7419516265	Appleby to Brough
57	4	g3c - Other neutral grassland	MG9 - <i>Holcus lanatus-Deschampsia cespitosa</i> grassland/MG1c - <i>Arrhenatherum elatius</i> grassland; <i>Filipendula ulmaria</i> sub-community	Grassland - Other neutral grassland	No	No	2.13	NY7429116216	Appleby to Brough
57	5	g3c - Other neutral grassland	Not well defined. MG9 - <i>Holcus lanatus-Deschampsia cespitosa</i> grassland/M27 - <i>Filipendula ulmaria-Angelica sylvestris</i> mire type.	Wetland - Fens (upland and lowland)	Yes	No	0.04	NY7427416217	Appleby to Brough
57	6	f2a - Lowland fens (small areas more like other neutral grassland g3c)	M27c - <i>Filipendula ulmaria-Angelica sylvestris</i> mire; <i>Juncus effusus-Holcus lanatus</i>	Wetland - Fens (upland and lowland)	Yes	No	1.31	NY7453016088	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			sub-community (small areas more like MG9 - <i>Holcus lanatus</i> - <i>Deschampsia cespitosa</i> grassland)						
57	7	w1h - Other woodland; mixed; g3c, 11 - Neutral grassland with scattered trees	No recognisable NVC community	Grassland - Other neutral grassland	No	No	1.53	NY7410416329	Appleby to Brough
57	8	w1h - Other woodland; mixed	No recognisable NVC community	Woodland and forest - Other woodland; mixed	No	No	0.31	NY7437316269	Appleby to Brough
57	9	g3c - Other neutral grassland	MG9 - <i>Holcus lanatus</i> - <i>Deschampsia cespitosa</i> grassland/MG1c - <i>Arrhenatherum elatius</i> grassland; <i>Filipendula ulmaria</i> sub-community type communities with rushes abundant and meadowsweet dominant in places	Grassland - Other neutral grassland	No	No	0.82	NY7432816319	Appleby to Brough
58	1	f2e - Reed beds, f2a, 15 16 - Lowland fen; Rushes dominant; Tall herb	S4 - <i>Phragmites australis</i> swamp and reed-beds, M25c - <i>Molinia caerulea</i> - <i>Potentilla erecta</i> ;	Wetland - Reedbeds Wetland - Fens (upland and lowland)	Yes	No	1.95	NY7222917359	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			<i>Angelica sylvestris</i> sub-community, M27 - <i>Filipendula ulmaria</i> - <i>Angelica sylvestris</i> mire (sub-community ill-defined)						
58	2	w1d - Wet woodland	W6 - <i>Alnus glutinosa</i> - <i>Urtica dioica</i> woodland dominated by birch sp. Most closely resembles W6e - <i>Betula pubescens</i> sub-community	Woodland and forest - Wet woodland	Yes	No	1.11	NY7240317317	Appleby to Brough
58	3	g1a6 - Other lowland dry acid grassland	U4a - <i>Festuca ovina</i> - <i>Agrostis capillaris</i> - <i>Galium saxatile</i> grassland, typical sub-community	Grassland - Other lowland acid grassland	No	No	0.68	NY7244017268	Appleby to Brough
58	4	r1a6 - Other eutrophic standing waters	Not assessed. No aquatic community and marginal community negligible	Lakes - Ponds (Non- Priority Habitat)	No	No	0.06	NY7248617244	Appleby to Brough
58	5	w1d - Wet woodland; g3c5 - Arrhenatherum neutral grassland	Poorly fitting W6 - <i>Alnus glutinosa</i> - <i>Urtica dioica</i> woodland type	Woodland and forest - Wet woodland	Yes	No	0.39	NY7260917302	Appleby to Brough
58	6	f2a, 15 - Lowland fens; Rushes dominant	M25c - <i>Molinia caerulea</i> - <i>Potentilla erecta</i> ;	Wetland - Fens (upland and lowland)	Yes	No	2.87	NY7264417194	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
			<i>Angelica sylvestris</i> sub-community						
58	7	g1a6 - Other lowland dry acid grassland	U4a - <i>Festuca ovina</i> - <i>Agrostis capillaris</i> - <i>Galium saxatile</i> grassland, typical sub-community	Grassland - Other lowland acid grassland	No	No	0.82	NY7280817097	Appleby to Brough
58	8	f2a - Lowland fens	M23a - <i>Juncus effusus/acutiflorus</i> - <i>Galium palustre</i> rush-pasture; <i>Juncus acutiflorus</i> sub-community	Wetland - Fens (upland and lowland)	Yes	No	3.16	NY7299016970	Appleby to Brough
58	9	f2a - Lowland fens	Difficult to assign an NVC community as vegetation represents transition between habitats and successional stages	Wetland - Fens (upland and lowland)	Yes	No	0.77	NY7301616951	Appleby to Brough
58	10	g3c8, 11 - <i>Holcus</i> - <i>Juncus</i> neutral grassland; Scattered trees	MG10 - <i>Holcus lanatus</i> - <i>Juncus effusus</i> rush-pasture type	Grassland - Other neutral grassland	No	No	0.35	NY7312816831	Appleby to Brough
58	11	g3c - Other neutral grassland	No recognisable NVC community	Grassland - Other neutral grassland	No	No	0.51	NY7320216888	Appleby to Brough
58	12	g3c, 14 - Other neutral grassland	MG10 - <i>Holcus lanatus</i> - <i>Juncus effusus</i> rush-pasture-type	Grassland - Other neutral grassland	No	No	1.26	NY7322716717	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
58	13	f2a - Lowland fens	M23a - <i>Juncus effusus/acutiflorus-Galium palustre</i> rush-pasture; <i>Juncus acutiflorus</i> sub-community	Wetland - Fens (upland and lowland)	Yes	No	1.42	NY7320816805	Appleby to Brough
58	14	f2a - Lowland fens; g3c - Other neutral grassland	M23a - <i>Juncus effusus/acutiflorus-Galium palustre</i> rush-pasture; <i>Juncus acutiflorus</i> sub-community. Undefinable grassland of no botanical interest	Wetland - Fens (upland and lowland)	Yes	No	0.39	NY7332316769	Appleby to Brough
59	1	g1b6 - Other upland acid grassland, with patches of developing h1a - lowland heathland	Approximates to U5 - <i>Nardus stricta-Galium saxatile</i> grassland, with patches of H1e - <i>Calluna vulgaris-Festuca ovina</i> heath; species-poor sub-community	Heathland and shrub - Lowland heathland	Yes	No	11.85	NY7197018380	Appleby to Brough
60	1	w1d5 - Alder woodland on floodplains (H91E0)	W6 - <i>Alnus glutinosa-Urtica dioica</i> woodland	Woodland and forest - Wet woodland	Yes	Yes	0.91	NY5517929354	Penrith to Temple Sowerby
60	2	g3c - Other neutral grassland	No distinct NVC community	Grassland - Other neutral grassland	No	No	0.73	NY5528129369	Penrith to Temple Sowerby

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
61	1	w1d - Wet woodland	Developing W6 - <i>Alnus glutinosa-Urtica dioica</i> woodland-type habitat	Woodland and forest - Wet woodland	Yes	No	1.45	NY5492529125	Penrith to Temple Sowerby
62	1	g3c5 - Other neutral grassland	MG1e - <i>Arrhenatherum elatius</i> grassland; <i>Centaurea nigra</i> sub-community	Grassland - Other neutral grassland	No	No	2.91	NY5704128587	Penrith to Temple Sowerby
63	1	w1f7 - Other lowland mixed deciduous woodland	No recognisable NVC community. Ground flora suggests developing W9 type woodland, but ground flora not well established and canopy up-planted with beech	Woodland and forest - Lowland mixed deciduous woodland	Yes	No	3.27	NY5237828975	M6 Junction 40 to Kemplay Bank
63	2	w2b - Other Scot's Pine woodland	No recognisable NVC community - closest fit W18 but man-made version outside of Scotland so does not fit classification	Woodland and forest - Other Scot's Pine woodland	No	No	0.43	NY5250928815	M6 Junction 40 to Kemplay Bank
63	4	w1f7 - Other lowland mixed deciduous woodland	No recognisable woodland NVC community - ground flora suggests W8/9 type woodland but lacking key indicators	Woodland and forest - Lowland mixed deciduous woodland	Yes	No	0.68	NY5242729199	M6 Junction 40 to Kemplay Bank

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
64	1	g3c6 - Lolium-Cynosurus neutral grassland	MG6a - <i>Lolium perenne-Cynosurus cristatus</i> grassland, <i>Trieste flavescens</i> sub-community	Grassland - Other neutral grassland	No	No	0.20	NY5167428769	M6 Junction 40 to Kemplay Bank
65	1	w1g - Other woodland; broadleaved	No recognisable NVC community	Woodland and forest - Other woodland; broadleaved	No	No	0.83	NY5156628779	M6 Junction 40 to Kemplay Bank
65	2	g3c5 - Arrhenatherum neutral grassland	MG1 - <i>Arrhenatherum elatius</i> grassland type	Grassland - Other neutral grassland	No	No	0.13	NY5159428844	M6 Junction 40 to Kemplay Bank
65	3	g3c5 - Arrhenatherum neutral grassland	MG1b - <i>Arrhenatherum elatius</i> grassland, <i>Urtica dioica</i> sub-community	Grassland - Other neutral grassland	No	No	0.22	NY5154428807	M6 Junction 40 to Kemplay Bank
66	1	g4 - Modified grassland	MG6a - <i>Lolium perenne-Cynosurus cristatus</i> grassland, typical sub-community - Possible fit for <i>Alopecurus pratensis</i> variant	Grassland - Modified grassland	No	No	0.67	NY6429825718	Temple Sowerby to Appleby
67	1	g3c - Other neutral grassland	MG9a - <i>Holcus lanatus-Deschampsia cespitosa</i> grassland, <i>Poa trivialis</i> sub-community	Grassland - Other neutral grassland	No	No	2.87	NY6258726752	Temple Sowerby to Appleby

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
67	2	f2a - Lowland fen	S28 - <i>Phalaris arundinacea</i> tall-herb fen	Wetland - Fens (upland and lowland)	Yes	No	0.91	NY6232626938	Temple Sowerby to Appleby
68	1	w1h - Other woodland; mixed	No NVC community for plantation woodland	Woodland and forest - Other woodland; mixed	No	No	3.12	NZ1617208447	Stephen Bank to Carkin Moor
68	2	w1g - Other woodland; broadleaved	No NVC community for plantation woodland	Woodland and forest - Other woodland; broadleaved	No	No	1.64	NZ1622808614	Stephen Bank to Carkin Moor
68	3	f2a - Lowland fen	Small area of grassland is rather ill-defined M23-type	Wetland - Fens (upland and lowland)	Yes	No	0.08	NZ1615608593	Stephen Bank to Carkin Moor
69	1	w1f7, 36 - Other Lowland mixed deciduous woodland;	No recognisable NVC community	Woodland and forest - Lowland mixed deciduous woodland	Yes	No	3.07	NY7795615007	Appleby to Brough
69	2	g3c5 - Arrhenatherum neutral grassland	MG1 - <i>Arrhenatherum elatius</i> grassland	Grassland - Other neutral grassland	No	No	0.87	NY7780515009	Appleby to Brough
69	3	w1f - Lowland mixed deciduous woodland	No recognisable NVC community	Woodland and forest - Lowland mixed deciduous woodland	Yes	No	0.50	NY7778615035	Appleby to Brough

Site	Habitat	UKHab habitat	NVC community	BM habitat	HoPI	Conforms to H91E0	Area (ha)	NGR	Scheme
71	1	w1g - Other woodland; broadleaved, w1g6 - line of trees (left bank)	No recognisable NVC community	Woodland and forest - Other woodland; broadleaved	No	No	1.20	NY5196828703	M6 Junction 40 to Kemplay Bank

Annex B: Raw NVC Data Tables

Table 9: Site 1, Habitat 1: Survey Details

Site Name	Site 1 Habitat 1
Date	20/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	The main area of habitat is rush pasture running broadly through the site. Five ponds are present surrounded by patchy sedge-swamp vegetation (we did not survey the ponds but noted they were all very heavily impacted by Canada geese).
Management Notes	Sheep grazed. No other current management apparent.
Condition Notes	Rush pasture and sedge swamp = moderate.
Slope	Slightly sloping towards the east but generally flat
Aspect	N/A
Soil pH	Unknown
Soil Depth (cm)	Unknown
Peat present?	Possible around wetter areas.
Peat Depth (if present, cm)	N/A
Broad Habitat	Lowland fen
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understorey/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.6
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	negligible
Ground Cover (%)	40%
Leaf Litter	Negligible
Thatch	Negligible

Bare Ground	<5%
Other Notes	The weather had been exceptionally dry and it was possible to walk with ease through the entire area. However, habitat around the ponds would normally be relatively water-logged.
BNG Habitat	f2a
BNG Condition	Moderate
NVC Community	M23a, S9 type

Table 10: Site 1, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	NY 76938 15466	
Species List		
Common Name	Scientific Name	Domin Scale
Yorkshire-Fog	Holcus lanatus	7
Sharp-Flowered Rush	Juncus acutiflorus	7
Ragged-Robin	Lychnis flos-cuculi	4
Marsh Pennywort	Hydrocotyle vulgaris	5
Meadowsweet	Filipendula ulmaria	5
Greater Bird's-Foot-Trefoil	Lotus pedunculatus	4
Marsh Valerian	Valeriana dioica	4
Rough Meadow-Grass	Poa trivialis	4
Bottle Sedge	Carex rostrata	3
Marsh Willowherb	Epilobium palustre	3
Perforate St John's-Wort	Hypericum perforatum	3
Sneezewort	Achillea ptarmica	3
Lesser Spearwort	Ranunculus flammula	3
Purple Moor-Grass	Molinia caerulea	3
Common Spotted-Orchid	Dactylorhiza fuchsii	3
Great Burnet	Sanguisorba officinalis	3
Marsh Ragwort	Senecio aquaticus	3
Shore Horsetail	Equisetum fluviatile x arvense = E. x littorale	3
Pointed Spear-Moss	Calliergonella cuspidata	5

Swamp		
Bottle Sedge	Carex rostrata	5
Bulrush	Typha latifolia	1
Marsh-Marigold	Caltha palustris	5
Water Mint	Mentha aquatica	4
Slender Tufted-Sedge	Carex acuta	4
Common Sedge	Carex nigra	4
Marsh Cinquefoil	Comarum palustre	5
Sharp-Flowered Rush	Juncus acutiflorus	5
Soft-Rush	Juncus effusus	4
Marsh Pennywort	Hydrocotyle vulgaris	4
Water Horsetail	Equisetum fluviatile	3
Marsh Horsetail	Equisetum palustre	4

Table 11: Site 1, Habitat 2: Survey Details

Site Name	Site 1 Habitat 2
Date	20/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Dry area with other grassland, young tree plantations (alder, birch spp., willow spp., rowan) and very occasional scattered scrub (hawthorn).
Management Notes	Sheep grazed. No other current management apparent.
Condition Notes	Poor because heavily sheep grazed and high incidence of creeping thistle, nettle etc.
Slope	Generally flat
Aspect	N/A
Soil pH	Unknown
Soil Depth (cm)	Unknown
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A

Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.6
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	40%
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5%
Other Notes	
BNG Habitat	g3c5
BNG Condition	poor
NVC Community	MG6 type

Table 12: Site 1, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	NY 77226 15395	
Species List		
Common Name	Scientific Name	Domin Scale
Common Bent	<i>Agrostis capillaris</i>	5
Sweet Vernal-Grass	<i>Anthoxanthum odoratum</i>	5
Yorkshire-Fog	<i>Holcus lanatus</i>	4
Tufted Hair-Grass	<i>Deschampsia cespitosa</i>	4
Red Fescue	<i>Festuca rubra</i>	7
Creeping Thistle	<i>Cirsium arvense</i>	5
White Clover	<i>Trifolium repens</i>	7
Creeping Buttercup	<i>Ranunculus repens</i>	4
Heath Bedstraw	<i>Galium saxatile</i>	4
Springy Turf-Moss	<i>Rhytidiadelphus squarrosus</i>	7

Common Mouse-Ear	Cerastium fontanum	4
Soft-Rush	Juncus effusus	4
Perennial Rye-Grass	Lolium perenne	3
Crested Dog's-Tail	Cynosurus cristatus	3
Common Bird's-Foot-Trefoil	Lotus corniculatus	3
Curled Dock	Rumex crispus	4
Broad-Leaved Dock	Rumex obtusifolius	4
Hedge Woundwort	Stachys sylvatica	3

Table 13: Site 1, Habitat 3: Survey Details

Site Name	Site 1 Habitat 3
Date	20/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	This area of the site consists of rush pasture and grassland vegetation with conifer plantations on either side. Rush pasture stretches broadly through the centre of the site. Areas of acid grassland occur, particularly towards the north (some parts very heavily grazed by rabbits). A rather ill-defined other grassland community occurs in areas, particularly towards the west. Young trees have been planted throughout some of the grassland areas (two age groups of birch spp., aspen, pedunculate oak).
Management Notes	No current management apparent
Condition Notes	Rush pasture / grassland moderate condition because protected from excessive grazing by livestock, although some areas of grassland very heavily grazed by rabbits.
Slope	Flat to gently sloping from west to east.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A

Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	Rush Pasture = 0.5 M, Neutral Grassland = 0.3 M, Acid Grassland = 0.15
Field Cover (%)	Rush Pasture = >95%, Neutral Grassland = >95%, Acid Grassland = >95%
Ground Layer height (above ground mean, m)	Negligible For All Habitats
ground cover	Rush Pasture = 60%, Neutral Grassland =40%, Acid Grassland =40%
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5%
Other Notes	M.O.D. land
BNG Habitat	f2a, g1a6, g3c5
BNG Condition	Moderate
NVC Community	M23a, U4b, MG6 type

Table 14: Site 1, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	376558, 515434	
Species		
Common Name	Scientific Name	Domin Scale
Rush Pasture		
Sharp-Flowered Rush	<i>Juncus acutiflorus</i>	8
Soft-Rush	<i>Juncus effusus</i>	7
Hard Rush	<i>Juncus inflexus</i>	4
Yorkshire-Fog	<i>Holcus lanatus</i>	7
Tufted Hair-Grass	<i>Deschampsia cespitosa</i>	4
Tormentil	<i>Potentilla erecta</i>	4
Common Nettle	<i>Urtica dioica</i>	4
Greater Bird's-Foot-Trefoil	<i>Lotus pedunculatus</i>	3

Springy Turf-Moss	Rhytidiadelphus squarrosus	7
Lesser Stitchwort	Stellaria graminea	3
Marsh Thistle	Cirsium palustre	3
Creeping Thistle	Cirsium arvense	4
American Willowherb	Epilobium ciliatum	3
Compact Rush	Juncus conglomeratus	4
Oval Sedge	Carex leporina	4
Acid Grassland		
Heath Bedstraw	Galium saxatile	7
Common Bent	Agrostis capillaris	5
Germander Speedwell	Veronica chamaedrys	4
Lesser Stitchwort	Stellaria graminea	4
Harebell	Campanula rotundifolia	3
Field Wood-Rush	Luzula campestris	5
Red Fescue	Festuca rubra	5
Sheep's-Fescue	Festuca ovina	3
Common Mouse-Ear	Cerastium fontanum	4
Springy Turf Moss	Rhytidiadelphus squarrosus	7
Pointed-Spear Moss	Calliergonella cuspidata	5
Sweet Vernal-Grass	Anthoxanthum odoratum	4
Yorkshire-Fog	Holcus lanatus	4
White Clover	Trifolium repens	3
Tormentil	Potentilla erecta	3
Mat-Grass	Nardus stricta	5
Heath Rush	Juncus squarrosus	4
Sheep's Sorrel	Rumex acetosella	3
Neutral Grassland		
Yorkshire-Fog	Holcus lanatus	7
Creeping Bent	Agrostis stolonifera	4
Red Fescue	Festuca rubra	7

Common Ragwort	<i>Senecio jacobaea</i>	4
Creeping Thistle	<i>Cirsium arvense</i>	5
Spear Thistle	<i>Cirsium vulgare</i>	3
White Clover	<i>Trifolium repens</i>	7
Common Nettle	<i>Urtica dioica</i>	5
Perennial Rye-Grass	<i>Lolium perenne</i>	4
Selfheal	<i>Prunella vulgaris</i>	5
Common Mouse-Ear	<i>Cerastium fontanum</i>	4
Lesser Stitchwort	<i>Stellaria graminea</i>	5
Dove's-Foot Crane's-Bill	<i>Geranium molle</i>	3
Hard Rush	<i>Juncus inflexus</i>	4
Germander Speedwell	<i>Veronica chamaedrys</i>	5
Creeping Buttercup	<i>Ranunculus repens</i>	7
Yarrow	<i>Achillea millefolium</i>	4
Silverweed	<i>Potentilla anserina</i>	4
Tufted Vetch	<i>Vicia cracca</i>	3
Hedge Bedstraw	<i>Galium mollugo</i>	3
Springy Turf-Moss	<i>Rhytidiadelphus squarrosus</i>	7
Pointed Spear-Moss	<i>Calliergonella cuspidatum</i>	5
Autumn Hawkbit	<i>Leontodon autumnalis</i>	3
Common Eyebright	<i>Euphrasia nemorosa</i>	3
Hairy Sedge	<i>Carex hirta</i>	4
Ribwort Plantain	<i>Plantago lanceolata</i>	5
Creeping Cinquefoil	<i>Potentilla reptans</i>	4
Curled Dock	<i>Rumex crispus</i>	5
Lady's Bedstraw	<i>Galium verum</i>	4
Common Sorrel	<i>Rumex acetosa</i>	5

Table 15: Site 1, Habitat 4: Survey Details

Site Name	Site 1 Habitat 4
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Date	20/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Conifer plantations of dense Scots pine/Sitka spruce/Larch. Of no botanical interest, although bluebells are occasional in the plantation to the north of the area.
Management Notes	No current management apparent
Condition Notes	Plantation woodland = poor condition.
Slope	Flat to gently sloping from west to east.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18 m
Canopy Cover (%)	>95%
Understory/Shrub Layer height (m)	No understorey
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.2 m
Field Cover (%)	<10%
Ground Layer height (above ground mean, m)	Negligible
ground cover	Negligible
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	>90%
Other Notes	M.O.D. land
BNG Habitat	w2c
BNG Condition	Poor
NVC Community	N/A

Table 16: Site 2, Habitat 1: Survey Details

Site Name	2
Date	22/06/2022
Surveyors	Paul Wolstenholme, Fraser Allen
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Mixed woodland along edge of A66 - beech and sycamore along road edge with planted cypress trees as additional screening for the estate - supports go ape type apparatus - largely bare understorey.
Management Notes	Little management apparent.
Condition Notes	Largely single canopy with scattered shrubs - no large dead wood and mostly bare understorey.
Slope	0
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	0
Peat present?	None
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	95
Understorey/Shrub Layer height (m)	4
Field Layer height (mean, m)	0.5
Field Cover (%)	10
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	5
Leaf Litter	High
Thatch	None
Bare Ground	80
Other Notes	Area only large enough for one woodland quadrat
BNG Habitat	w1h6 - Other woodland; mixed; mainly conifer

BNG Condition	Poor
NVC Community	Plantation woodland with no recognisable NVC community - Understorey indicates possible historic presence of W9 woodland.

Table 17: Site 2, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	350773, 528737	
Common Name	Scientific Name	Domin Scale
Lawson's Cypress	<i>Chamaecyparis lawsoniana</i>	7
Cherry	<i>Prunus</i> spp.	3
Douglas Fir	<i>Pseudotsuga menziesii</i>	3
Sycamore	<i>Acer pseudoplatanus</i>	5
Beech	<i>Fagus sylvatica</i>	5
Scots Pine	<i>Pinus sylvestris</i>	3
Lime	<i>Tilia x europaea</i>	1
Elder	<i>Sambucus nigra</i>	4
Snowberry	<i>Symphoricarpos albus</i>	4
Hawthorn	<i>Crataegus monogyna</i>	1
Rhododendron	<i>Rhododendron ponticum</i>	1
Dog's Mercury	<i>Mercurialis perennis</i>	6
Lords-And-Ladies	<i>Arum maculatum</i>	3
Rough-Stalked Feathermoss	<i>Brachythecium rutabulum</i>	4
Bare ground and Leaf Litter	#N/A	10

Table 18: Site 2, Habitat 2: Survey Details

Site Name	2
Date	22/06/2022
Surveyors	Paul Wolstenholme & Fraser Allen

Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Ornamental planted woodland at entrance of estate grounds - mostly non native species - understorey dominated by grasses where open but mostly bare ground and leaf litter under woodland canopy with few woodland indicator species.
Management Notes	Grass areas likely to be mown occasionally.
Condition Notes	Few self-seeded young trees and saplings, no dead wood present.
Slope	0
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	no
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	60
Understorey/Shrub Layer height (m)	4
Field Layer height (mean, m)	0.5
Field Cover (%)	50
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	5
Leaf Litter	Moderate
Thatch	None
Bare Ground	30
Other Notes	Two separate areas of same habitat type - Each area only large enough for single quadrat
BNG Habitat	w1h6 - Other woodland; mixed; mainly conifer
BNG Condition	Poor
NVC Community	No recognisable NVC community - NVC analysis not considered necessary due to limited native species and obvious planting scheme.

Table 19: Site 2, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	30x50	4x4
Grid Reference (X, Y)	350826, 528725	
Species		
Common Name	Scientific Name	Domin Scale
Canopy		
Silver Birch	<i>Betula pendula</i>	1
Lawson's Cypress	<i>Chamaecyparis lawsoniana</i>	5
Patagonian Cypress	<i>Fitzroya cupressoides</i>	1
Norway Maple	<i>Acer platanoides</i>	1
Field Maple	<i>Acer campestre</i>	1
Japanese Maple	<i>Acer palmatum</i>	1
Silverberry	<i>Elaeagnus commutata</i>	1
Dark-Bark Spruce	<i>Picea jenzensis</i>	1
English Walnut	<i>Juglans regia</i>	1
Silver Maple	<i>Acer saccharinum</i>	1
Cherry Laurel	<i>Prunus laurocerasus</i>	1
Red Maple	<i>Acer rubrum</i>	2
Black Pine	<i>Pinus nigra</i>	1
Copper Beech	<i>Fagus sylvatica f. purpurea</i>	1
Weymouth Pine	<i>Pinus strobus</i>	5
Smooth Arizona Cypress	<i>Cupressus arizonica var. glabra</i>	5
Rhododendron 'September Song'	<i>Rhus typhina f. laciniata</i>	1
Western Red Cedar	<i>Thuja plicata</i>	2
Shrub		
Dogwood	<i>Cornus sanguinea</i>	2
Syrian Juniper	<i>Juniperus drupacea</i>	2
Field		
Field Forget-Me-Not	<i>Myosotis arvensis</i>	4

Cleavers	Galium aparine	4
Creeping Buttercup	Ranunculus repens	4
Wood Speedwell	Veronica montana	4
Common Nettle	Urtica dioica	1
Rough Meadow-Grass	Poa trivialis	3
Ground		
Rough-Stalked Feathermoss	Brachythecium rutabulum	4
Bare ground And Leaf Litter	#N/A	10

Table 20: Site 2, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50x30	4x4
Grid Reference (X, Y)	350855, 528740	
Species		
Common Name	Scientific Name	Domin Scale
Canopy		
Colorado Blue Spruce	Picea pungens var. glauca	1
Chinese Red Cedar	Toona sinensis	1
Norway Maple	Acer platanoides	2
Syrian Juniper	Juniperus drupacea	1
Japanese Maple	Acer palmatum	3
Weigela 'Florida Variegata'	Weigela florida	1
Common Whitebeam	Sorbus aria	1
Grey Poplar	Populus alba x tremula = P. x canescens	2
Giant Sequoia	Sequoiadendron giganteum	1
Lawson's Cypress	Chamaecyparis lawsoniana	5
European Silver Fir	Abies alba	4
Coast Redwood	Sequoia sempervirens	1
Small-Leaved Lime	Tilia cordata	1
Shrub		

Red Elderberry	Sambucus racemosa	1
Barberry Sp.	Berberis spp.	1
Snowberry	Symphoricarpos albus	1
Field		
Creeping Buttercup	Ranunculus repens	9
Cock's-Foot	Dactylis glomerata	4
Meadow Foxtail	Alopecurus pratensis	5
False Oat-Grass	Arrhenatherum elatius	4
Rough Meadow-Grass	Poa trivialis	5
Field Forget-Me-Not	Myosotis arvensis	4
Cleavers	Galium aparine	3
Ground-Elder	Aegopodium podagraria	2
Broad-Leaved Dock	Rumex obtusifolius	2
Ground		
Bare ground & Leaf Litter	#N/A	10

Table 21: Site 2, Habitat 3: Survey Details

Site Name	2
Date	23/06/2022
Surveyors	Paul Wolstenholme & Fraser Allen
Site/Vegetation Description	Conifer plantation with scattered deciduous trees - as ornamental entrance becoming screening woodland with separate tree species planted in distinct lines - understorey dominated but species indicative of sub-optimal conditions, becoming bare to north east.
Management Notes	Occasional mowing management of entrance area likely.
Condition Notes	No young trees or signs of regeneration, trees mostly same age - very little dead wood.
Slope	0
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A

Peat present?	no
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	75
Understory/Shrub Layer height (m)	3
Field Layer height (mean, m)	0.5
Field Cover (%)	50
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	High
Thatch	Minor
Bare Ground	50
Other Notes	Many ornamental species planted as part of estate planting scheme - area only large enough for 2 woodland quadrats.
BNG Habitat	w1h6 - Other woodland; mixed; mainly conifer
BNG Condition	Poor
NVC Community	Ornamental planted woodland - No recognisable canopy NVC community - No recognisable NVC subcommunity in field layer with occasional/rare presence of ferns and other woodland indicators may indicate historic W9 woodland but no other significant indicators present.

Table 22: Site 2, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	350847, 528775	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Downy Birch	Betula pubescens	4

Beech	<i>Fagus sylvatica</i>	4
Scot's Pine	<i>Pinus sylvestris</i>	6
European Larch	<i>Larix decidua</i>	2
Lawson's Cypress	<i>Chamaecyparis lawsoniana</i>	4
Cherry [Spp.]	<i>Prunus [spp.]</i>	1
Holly	<i>Ilex aquifolium</i>	1
Portugal Laurel	<i>Prunus lusitanica</i>	1
Balsam Fir	<i>Abies balsamea</i>	1
Rowan	<i>Sorbus aucuparia</i>	1
Shrub		
Box	<i>Buxus sempervirens</i>	4
Barberry Spp.	<i>Berberis spp.</i>	2
Field		
Creeping Buttercup	<i>Ranunculus repens</i>	7
Cleavers	<i>Galium aparine</i>	5
Variegated Yellow Archangel	<i>Lamium galeobdolon</i> subsp. <i>argentatum</i>	4
Great Willowherb	<i>Epilobium hirsutum</i>	2
Herb-Robert	<i>Geranium robertianum</i>	4
Lords-And-Ladies	<i>Arum maculatum</i>	2
Lady-Fern	<i>Athyrium filix-femina</i>	2
Male-Fern	<i>Dryopteris filix-mas</i>	1
Common Nettle	<i>Urtica dioica</i>	2
Broad Buckler-Fern	<i>Dryopteris dilatata</i>	1
Ground		
Bare ground & Leaf Litter	#N/A	10

Table 23: Site 2, Habitat 3: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	10x120	4x4
Grid Reference (X, Y)	350881, 528813	

Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Beech	<i>Fagus sylvatica</i>	5
Douglas Fir	<i>Pseudotsuga menziesii</i>	5
Lime	<i>Tilia x europaea</i>	5
Cherry [Spp.]	<i>Prunus [spp.]</i>	5
Lawson's Cypress	<i>Chamaecyparis lawsoniana</i>	5
Shrubs		
Elder	<i>Sambucus nigra</i>	4
Field		
Garlic Mustard	<i>Alliaria petiolata</i>	5
Common Nettle	<i>Urtica dioica</i>	2
Enchanter's-Nightshade	<i>Circaea lutetiana</i>	1
Lords-And-Ladies	<i>Arum maculatum</i>	3
Common Ivy	<i>Hedera helix</i>	4
Ground		
Bare ground And Leaf Litter	#N/A	10

Table 24: Site 3, Habitat 1: Survey Details

Site Name	3
Date	08/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Grass verge dominated by bramble and ruderal vegetation - close mown at edge with hawthorn and elder shrubs at margin.
Management Notes	Close mown at edge.
Condition Notes	Dominated by ruderal sub-optimal species - poor.
Slope	30
Aspect	SE
Soil pH	Unknown

Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1.5
Field Cover (%)	100
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	None
Thatch	Major
Bare Ground	None
Other Notes	Area only large enough for single quadrat
BNG Habitat	Arrhenatherum neutral grassland; tall ; ruderal/ephemeral - g3c5 16 17
BNG Condition	Poor
NVC Community	MG1a - Arrhenatherum elatius grassland, Urtica dioica sub-community

Table 25: Site 3, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	373394, 516794	
Species List		
Common Name	Scientific Name	Domin Scale
Rosebay Willowherb	Chamerion angustifolium	7
Common Nettle	Urtica dioica	8
Cleavers	Galium aparine	6
Common Couch	Elytrigia repens	2

Bramble	Rubus fruticosus agg.	5
Red Campion	Silene dioica	2
Yorkshire-Fog	Holcus lanatus	4
Creeping Thistle	Cirsium arvense	1
Rough Meadow-Grass	Poa trivialis	1
Hogweed	Heracleum sphondylium	2
Cut-Leaved Crane's-Bill	Geranium dissectum	1
Meadow Vetchling	Lathyrus pratensis	2
Silverweed	Potentilla anserina	1
Field Horsetail	Equisetum arvense	1
Common Ragwort	Senecio jacobaea	1
Bush Vetch	Vicia sepium	1

Table 26: Site 4, Habitat 1: Survey Details

Site Name	4
Date	01/06/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Mixed deciduous woodland with mature, semi-mature and young trees - sparse understorey but with some woodland indicators in western section - public road runs through central area.
Management Notes	No apparent management evident.
Condition Notes	Established woodland with complex canopy with mixture of age ranges - no large deadwood observed with obvious signs of grazing present - no seedlings or saplings present.
Slope	0
Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A

Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	70
Understory/Shrub Layer height (m)	5
Field Layer height (mean, m)	0.1
Field Cover (%)	10
Ground Layer height (above ground mean, m)	0.02
Ground Cover (%)	5
Leaf Litter	<5
Thatch	0
Bare Ground	85
Other Notes	Small area - only 2 quadrats required.
BNG Habitat	Other upland mixed ashwoods - w1b6 - Priority Habitat
BNG Condition	Moderate
NVC Community	W8 type woodland - subcommunity not distinctive, W8f closest match but no evidence of ramsons/wild garlic present

Table 27: Site 4, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)		359423, 528651
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sycamore	<i>Acer pseudoplatanus</i>	2
Ash	<i>Fraxinus excelsior</i>	2
Wych Elm	<i>Ulmus glabra</i>	6
Small-Leaved Lime	<i>Tilia cordata</i>	3
Sessile Oak	<i>Quercus petraea</i>	4
Beech	<i>Fagus sylvatica</i>	3

Shrubs		
Elder	<i>Sambucus nigra</i>	4
Wych Elm	<i>Ulmus glabra</i>	4
Hawthorn	<i>Crataegus monogyna</i>	1
Holly	<i>Ilex aquifolium</i>	1
Field		
Common Chickweed	<i>Stellaria media</i>	2
Cleavers	<i>Galium aparine</i>	2
Common Ivy Agg.	<i>Hedera helix</i> agg.	3
Bare Ground And Leaf Litter	#N/A	9

Table 28: Site 4, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50x50	4x4
Grid Reference (X, Y)	359482, 528642	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Wych Elm	<i>Ulmus glabra</i>	5
Small-Leaved Lime	<i>Tilia cordata</i>	3
Sycamore	<i>Acer pseudoplatanus</i>	3
Sessile Oak	<i>Quercus petraea</i>	4
Beech	<i>Fagus sylvatica</i>	4
Shrubs		
Beech	<i>Fagus sylvatica</i>	3
Wych Elm	<i>Ulmus glabra</i>	5
Field		
Dog's Mercury	<i>Mercurialis perennis</i>	8
Wood Anemone	<i>Anemone nemorosa</i>	2
Common Ivy Agg.	<i>Hedera helix</i> agg.	3
Rough-Stalked Feather Moss	<i>Brachythecium rutabulum</i>	2
Common Nettle	<i>Urtica dioica</i>	1

Lords-And-Ladies	Arum maculatum	1
Common Smoothcap	Atrichum undulatum	1
Bare ground And Leaf Litter	#N/A	6

Table 29: Site 5, Habitat 1: Survey Details

Site Name	5
Date	06/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Semi-mature planted woodland along steep banks of River Eden with taller mature existing trees further east. Ancient woodland indicator species extensive in understorey.
Management Notes	Managed for game hunting.
Condition Notes	Mixed canopy of semi-mature and mature trees with hazel/hawthorn sub-canopy, large deadwood present - few signs of damage and disease - evidence of deer grazing but seedlings and saplings scattered throughout.
Slope	30
Aspect	N
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	90
Understory/Shrub Layer height (m)	2
Understorey Cover (%)	10
Field Layer height (mean, m)	0.3
Field Cover (%)	30
Ground Layer height (above ground mean, m)	0.01

Ground Cover (%)	5
Leaf Litter	<5
Thatch	0
Bare Ground	60
Other Notes	Access/area only large enough for 4 quadrats
BNG Habitat	w1f7 - Other lowland mixed deciduous woodland - Priority Habitat
BNG Condition	Moderate
NVC Community	W10e - Quercus robur-Pteridium aquilinum-Rubus fruticosus woodland, Acer pseudoplatanus-Oxalis acetosella sub-community

Table 30: Site 5, Habitat 1: Survey Details

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	367431, 521112	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sessile Oak	Quercus petraea	5
Ash	Fraxinus excelsior	4
Pedunculate Oak	Quercus robur	3
Sycamore	Acer pseudoplatanus	3
Wild Cherry	Prunus avium	3
Copper Beech	Fagus sylvatica f. purpurea	1
Beech	Fagus sylvatica	1
Shrubs		
Hazel	Corylus avellana	3
Hawthorn	Crataegus monogyna	3
Ash	Fraxinus excelsior	3
Field		
Tufted Hair-Grass	Deschampsia cespitosa	4
False Oat-Grass	Arrhenatherum elatius	3

Rough Meadow-Grass	<i>Poa trivialis</i>	4
Pignut	<i>Conopodium majus</i>	3
Bluebell	<i>Hyacinthoides non-scripta</i>	3
Wood Avens	<i>Geum urbanum</i>	3
Cleavers	<i>Galium aparine</i>	2
Wild Cherry Seedling	<i>Prunus avium</i>	1
Greater Stitchwort	<i>Stellaria holostea</i>	5
Bush Vetch	<i>Vicia sepium</i>	2
Common Smoothcap	<i>Atrichum undulatum</i>	4

Table 31: Site 5, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50x50	4x4
Grid Reference (X, Y)		
367474, 521029		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Pedunculate Oak	<i>Quercus robur</i>	7
Wild Cherry	<i>Prunus avium</i>	3
Ash	<i>Fraxinus excelsior</i>	2
Beech	<i>Fagus sylvatica</i>	2
Sycamore	<i>Acer pseudoplatanus</i>	2
Shrubs		
Hazel	<i>Corylus avellana</i>	5
Hawthorn	<i>Crataegus monogyna</i>	4
Field		
Dog's Mercury	<i>Mercurialis perennis</i>	5
Rough Meadow-Grass	<i>Poa trivialis</i>	5
Greater Stitchwort	<i>Stellaria holostea</i>	4
Bush Vetch	<i>Vicia sepium</i>	3
Cock's-Foot	<i>Dactylis glomerata</i>	1

Barren Brome	Anisantha sterilis	2
Bluebell	Hyacinthoides non-scripta	3
Enchanter's-Nightshade	Circaea lutetiana	3
Common Smoothcap	Atrichum undulatum	3
Common Tamarisk-Moss	Thuidium tamariscinum	3
Wood Avens	Geum urbanum	2
False Oat-Grass	Arrhenatherum elatius	1

Table 32: Site 5, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	50x50	4x4
Grid Reference (X, Y)		367501, 520940
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Field Maple	Acer campestre	2
Wych Elm	Ulmus glabra	4
Pedunculate Oak	Quercus robur	4
Ash	Fraxinus excelsior	3
Downy Birch	Betula pubescens	3
Sycamore	Acer pseudoplatanus	4
Shrubs		
Hawthorn	Crataegus monogyna	4
Hazel	Corylus avellana	5
Wych Elm	Ulmus glabra	4
Field		
Dog's Mercury	Mercurialis perennis	5
Greater Stitchwort	Stellaria holostea	4
Bluebell	Hyacinthoides non-scripta	2
Enchanter's-Nightshade	Circaea lutetiana	2
Male-Fern	Dryopteris filix-mas	2

Common Feather-Moss	Kindbergia praelonga	6
Common Smoothcap	Atrichum undulatum	3
Rough Meadow-Grass	Poa trivialis	4
Birch [Spp] Seedling	Betula [spp]	1
Common Stinkhorn	Phallus impudicus	1

Table 33: Site 5, Habitat 1: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	50x50	4x4
Grid Reference (X, Y)	367536, 520879	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Ash	Fraxinus excelsior	5
Sycamore	Acer pseudoplatanus	5
Sessile Oak	Quercus petraea	2
Shrubs		
Hazel	Corylus avellana	4
Hawthorn	Crataegus monogyna	3
Elder	Sambucus nigra	1
Field		
Dog's Mercury	Mercurialis perennis	4
Enchanter's-Nightshade	Circaea lutetiana	3
Common Nettle	Urtica dioica	4
Pignut	Conopodium majus	3
Tufted Hair-Grass	Deschampsia cespitosa	2
Rough Meadow-Grass	Poa trivialis	5
Meadowsweet	Filipendula ulmaria	2
Wood Avens	Geum urbanum	3
Cleavers	Galium aparine	3

Broad Buckler-Fern	<i>Dryopteris dilatata</i>	1
Bush Vetch	<i>Vicia sepium</i>	2
Bearded Couch	<i>Elymus caninus</i>	2
Common Feathermoss	<i>Kindbergia praelonga</i>	4
Rough-Stalked Feather-Moss	<i>Brachythecium rutabulum</i>	5
Hairy-Brome	<i>Bromopsis ramosa</i>	4

Table 34: Site 5, Habitat 2: Survey Details

Site Name	5
Date	06/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Secondary young birch woodland with semi-mature sycamore - understorey dominated by bramble.
Management Notes	Access path cut through woodland.
Condition Notes	Young complex canopy, no significant dead wood - scattered woodland indicator species in east at edge of more mature woodland
Slope	30
Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	10
Canopy Cover (%)	20
Understorey/Shrub Layer height (m)	3

Understorey Cover (%)	85
Field Layer height (mean, m)	1
Field Cover (%)	90
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	15
Leaf Litter	0
Thatch	0
Bare Ground	5
Other Notes	Limited access - single quadrat undertaken along access path
BNG Habitat	w1g7 - Other broadleaved woodland types
BNG Condition	Moderate
NVC Community	Developing W10d type - Quercus robur-Pteridium aquilinum-Rubus fruticosus woodland, Holcus lanatus sub-community

Table 35: Site 5, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	whole area	whole area
Grid Reference (X, Y)	367346, 521274	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Ash	Fraxinus excelsior	2
Sycamore	Acer pseudoplatanus	2
Douglas Fir	Pseudotsuga menziesii	1
Scots Pine	Pinus sylvestris	3
Shrub		
Hawthorn	Crataegus monogyna	3
Silver Birch	Betula pendula	8
Elder	Sambucus nigra	3
Scots Pine	Pinus sylvestris	3

Wild Cherry	<i>Prunus avium</i>	2
Dog-Rose	<i>Rosa canina</i>	1
Holly	<i>Ilex aquifolium</i>	1
	Field	
Common Nettle	<i>Urtica dioica</i>	2
Yorkshire-Fog	<i>Holcus lanatus</i>	4
Cleavers	<i>Galium aparine</i>	2
Curled Dock	<i>Rumex crispus</i>	2
False Oat-Grass	<i>Arrhenatherum elatius</i>	2
Bramble	<i>Rubus fruticosus</i> agg.	8
Rough Meadow-Grass	<i>Poa trivialis</i>	3
Creeping Thistle	<i>Cirsium arvense</i>	3
Cock's-Foot	<i>Dactylis glomerata</i>	3
Meadowsweet	<i>Filipendula ulmaria</i>	1
Red Campion	<i>Silene dioica</i>	1
Herb-Robert	<i>Geranium robertianum</i>	3
Enchanter's-Nightshade	<i>Circaea lutetiana</i>	1
Field Forget-Me-Not	<i>Myosotis arvensis</i>	1
Bluebell	<i>Hyacinthoides non-scripta</i>	1
Wood Avens	<i>Geum urbanum</i>	2
Rough Stalked Feather-Moss	<i>Brachythecium rutabulum</i>	3
Rosebay Willowherb	<i>Chamerion angustifolium</i>	3
Dog's Mercury	<i>Mercurialis perennis</i>	1
Golden-Scaled Male-Fern	<i>Dryopteris affinis</i> agg.	1
Tufted Hair-Grass	<i>Deschampsia cespitosa</i>	1
Hogweed	<i>Heracleum sphondylium</i>	1
Honeysuckle	<i>Lonicera periclymenum</i>	1
Creeping Soft-Grass	<i>Holcus mollis</i>	2
Common Bent	<i>Agrostis capillaris</i>	1

Table 36: Site 6, Habitat 1: Survey Details

Site Name	6
Date	30/06/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Alder wet woodland with typical poorly developed ground flora. Mature woodland with a sparse scattered understorey layer. Slow flowing stream running down SW edge - 1.5m wide, 10cm depth, heavily shaded. Aquatic vegetation not prominent. Trees all of similar age, little sign of regeneration. Negligible standing or fallen dead wood, and sparse understorey.
Management Notes	No obvious management but evidence of use for game hunting.
Condition Notes	Single complex canopy, with trees of mostly the same age - some large deadwood present but few signs of regeneration and evidence of grazing present.
Slope	0
Aspect	0
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	80
Understory/Shrub Layer height (m)	3
Field Layer height (mean, m)	0.75
Field Cover (%)	60
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	15
Leaf Litter	Minor
Thatch	Minor

Bare Ground	25
Other Notes	Area all of very similar composition - Single quadrat/species list required only
BNG Habitat	w1d5 - Alder woodland on floodplains (H91E0) - Priority Habitat/Annex 1
BNG Condition	Moderate
NVC Community	W6a - <i>Alnus glutinosa</i> - <i>Urtica dioica</i> woodland, typical sub-community

Table 37: Site 6, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	355140, 528518	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Alder	<i>Alnus glutinosa</i>	6
Downy Birch	<i>Betula pubescens</i>	1
Shrubs		
Elder	<i>Sambucus nigra</i>	1
Grey Willow	<i>Salix cinerea</i>	1
Field		
Rough Meadow-Grass	<i>Poa trivialis</i>	5
Tufted Hair-Grass	<i>Deschampsia cespitosa</i>	1
False Oat-Grass	<i>Arrhenatherum elatius</i>	3
Common Nettle	<i>Urtica dioica</i>	2
Wood Dock	<i>Rumex sanguineus</i>	2
Creeping Buttercup	<i>Ranunculus repens</i>	3
Bramble	<i>Rubus fruticosus</i> agg.	2
Cleavers	<i>Galium aparine</i>	3
Bittersweet	<i>Solanum dulcamara</i>	2
Broad Buckler-Fern	<i>Dryopteris dilatata</i>	4
Male-Fern	<i>Dryopteris filix-mas</i>	4

Lady-Fern	Athyrium filix-femina	2
Stream		
Callitriche [Spp]	Callitriche [spp]	1
Marsh-Marigold	Caltha palustris	2
Meadowsweet	Filipendula ulmaria	1
Floating Sweet-Grass	Glyceria fluitans	1

Table 38: Site 6, Habitat 2: Survey Details

Site Name	6
Date	30/06/2022
Surveyors	Paul Wolstenholme & Dermot McKee
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Scots pine plantation split into two isolated areas - with occasional scattered broadleaved trees at boundary. Mostly bare understorey dominated by pine needles, with scattered elder shrubs.
Management Notes	No distinct management evident.
Condition Notes	Plantation woodland - Poor
Slope	30
Aspect	Multiple Aspects
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	70
Understorey/Shrub Layer height (m)	3
Understorey Cover %	5
Field Layer height (mean, m)	0.75
Field Cover (%)	5

Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	Minor
Thatch	0
Bare Ground	95
Other Notes	NVC classification/survey not suitable for this habitat type - Species list only compiled
BNG Habitat	Other Scot's Pine woodland
BNG Condition	Poor
NVC Community	No recognisable NVC habitat present - Planted W18 type but outside of Scotland so does not meet classification

Table 39: Site 6, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	354946, 528737 & 355002, 528793	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Scots Pine	<i>Pinus sylvestris</i>	8
Pedunculate Oak	<i>Quercus robur</i>	3
Ash	<i>Fraxinus excelsior</i>	3
Shrubs		
Crab Apple	<i>Malus sylvestris</i>	3
Elder	<i>Sambucus nigra</i>	3
Field		
Common Nettle	<i>Urtica dioica</i>	3

Table 40: Site 6, Habitat 3: Survey Details

Site Name	6
Date	30/06/2022
Surveyors	Paul Wolstenholme & Dermot McKee

Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Unmanaged grassland at edge of woodland between two sections of Scot's pine woodland. Small stream emerging from wet woodland area running through habitat with narrow strip of emergent vegetation.
Management Notes	None evident.
Condition Notes	Limited areas of scattered scrub and bare ground but even tall sward throughout. Small abundance of species indicative of sub-optimal conditions present as well.
Slope	20
Aspect	North
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
shrub	N/A
Field Layer height (mean, m)	0.75
Field Cover (%)	100
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	0
Thatch	Minor
Bare Ground	0

Other Notes	NVC habitat clear and quadrats not considered necessary - Detailed species list compiled only
BNG Habitat	Arrhenatherum neutral grassland
BNG Condition	Moderate
NVC Community	MG1 - Arrhenatherum elatius grassland

Table 41: Site 6, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	354988, 528748	
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	Arrhenatherum elatius	8
Common Bent	Agrostis capillaris	5
Lesser Stitchwort	Stellaria graminea	4
Broom	Cytisus scoparius (syn. Sarothamnus scoparius)	3
Red Fescue	Festuca rubra	4
Cleavers	Galium aparine	5
Creeping Bent	Agrostis stolonifera	3
Compact Rush	Juncus conglomeratus	3
Yorkshire-Fog	Holcus lanatus	4
Meadow Vetchling	Lathyrus pratensis	4
Enchanter's-Nightshade	Circaea lutetiana	3
Reed Canary-Grass	Phalaris arundinacea	4
Common Nettle	Urtica dioica	4
Crosswort	Cruciata laevipes	4

Table 42: Site 7, Habitat 1: Survey Details

Site Name	7
Date	06/07/2022
Surveyors	Dermot McKee, Paul Wolstenholme

Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Area of Arrhenatherum neutral grassland with scattered trees and shrubs along side the River Eden - line of mature beech trees along southwestern boundary and small section of semi mature ash and alder along the river - ill defined woodland/grassland with scattered trees/lines of trees.
Management Notes	None evident
Condition Notes	Grassland with high abundance of bare ground, scrub and presence of invasive species
Slope	0
Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	20
Understory/Shrub Layer height (m)	4
Understorey Cover (%)	25
Field Layer height (mean, m)	0.4
Field Cover (%)	0.5
Ground Layer height (above ground mean, m)	50
Ground Cover (%)	5
Leaf Litter	0
Thatch	0
Bare Ground	25
Other Notes	Ill defined woodland - NVC survey not appropriate - Species list compiled
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Poor
NVC Community	MG1 - Arrhenatherum elatius grassland

Table 44: Site 7, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)		
365512, 524115		
Species List		
Common Name	Scientific Name	Domin Species
Beech	<i>Fagus sylvatica</i>	4
Ash	<i>Fraxinus excelsior</i>	4
Hawthorn	<i>Crataegus monogyna</i>	5
Alder	<i>Alnus glutinosa</i>	4
Elder	<i>Sambucus nigra</i>	4
Cock's-Foot	<i>Dactylis glomerata</i>	7
Creeping Bent	<i>Agrostis stolonifera</i>	4
Rough Meadow-Grass	<i>Poa trivialis</i>	4
Germander Speedwell	<i>Veronica chamaedrys</i>	5
Red Campion	<i>Silene dioica</i>	3
Himalayan Balsam	<i>Impatiens glandulifera</i>	5
Cleavers	<i>Galium aparine</i>	4
Common Nettle	<i>Urtica dioica</i>	4
Male-Fern	<i>Dryopteris filix-mas</i>	3
Common Bent	<i>Agrostis capillaris</i>	4
False Oat-Grass	<i>Arrhenatherum elatius</i>	5
Common Chickweed	<i>Stellaria media</i>	4
Common Dog-Violet	<i>Viola riviniana</i>	4
Common Smoothcap	<i>Atrichum undulatum</i>	4
Creeping Buttercup	<i>Ranunculus repens</i>	3

Table 45: Site 7, Habitat 2: Survey Details

Site Name	7
Date	06/07/2022

Surveyors	Dermot McKee & Paul Wolstenholme
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Poor quality pasture between woodland areas on uneven ground with area of dense gorse - bordered by line of trees along riparian margin with some emergent riparian herbs present.
Management Notes	Obviously periodically grazed with mostly short sward with scattered taller grasses.
Condition Notes	Significant areas of bare ground, scrub abundance over 5% - species indicative of suboptimal conditions present.
Slope	0
Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.1
Field Cover (%)	80
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	N/A
Thatch	N/A
Bare Ground	20
Other Notes	Habitat clearly defined - Species list only compiled

BNG Habitat	g4 - Modified grassland
BNG Condition	Poor
NVC Community	MG7a - Lolium perenne leys and related grasslands, Lolium perenne-Trifolium repens leys

Table 46: Site 7, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole Area
Grid Reference (X, Y)	365605, 524147	
Species List		
Common Name	Scientific Name	Domin Scale
Gorse	Ulex europaeus	8
Perennial Rye-Grass	Lolium perenne	5
Yorkshire-Fog	Holcus lanatus	7
Timothy	Phleum pratense	4
Cock's-Foot	Dactylis glomerata	4
False Oat-Grass	Arrhenatherum elatius	4
Meadow Foxtail	Alopecurus pratensis	4
Creeping Buttercup	Ranunculus repens	5
Creeping Thistle	Cirsium arvense	4
Common Nettle	Urtica dioica	4
White Clover	Trifolium repens	4
Reed Canary-Grass	Phalaris arundinacea	3
Marsh Woundwort	Stachys palustris	3
Line Of Trees		
Alder	Alnus glutinosa	5
Ash	Fraxinus excelsior	4

Table 47: Site 7, Habitat 3: Survey Details

Site Name	7
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Date	06/07/2022
Surveyors	Dermot McKee & Paul Wolstenholme
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Mixed plantation on banks of river - typical understorey mix of ruderal vegetation with scattered woodland species.
Management Notes	None evident.
Condition Notes	Plantation woodland with some standing dead wood, evidence of grazing and no signs of regeneration.
Slope	30
Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	75
Understorey/Shrub Layer height (m)	3
Understorey Cover (%)	5
Field Layer height (mean, m)	0.3
Field Cover (%)	45
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	Minor
Thatch	0
Bare Ground	High

Other Notes	Obvious plantation woodland - Species list compiled only
BNG Habitat	w1h6 - Other woodland; mixed; mainly conifer
BNG Condition	Poor
NVC Community	No recognisable NVC community - Potential historic W9 woodland from ground flora

Table 48: Site 7, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	365838, 524075	
Species List		
Common Name	Scientific Name	Domin Scale
Scots Pine	<i>Pinus sylvestris</i>	7
Sycamore	<i>Acer pseudoplatanus</i>	5
Alder	<i>Alnus glutinosa</i>	5
Lady-Fern	<i>Athyrium filix-femina</i>	5
Broad Buckler-Fern	<i>Dryopteris dilatata</i>	4
Greater Stitchwort	<i>Stellaria holostea</i>	3
Red Campion	<i>Silene dioica</i>	4
Yorkshire-Fog	<i>Holcus lanatus</i>	5
False Oat-Grass	<i>Arrhenatherum elatius</i>	5
Rough Meadow-Grass	<i>Poa trivialis</i>	5
Bearded Couch	<i>Elymus caninus</i>	3
Common Nettle	<i>Urtica dioica</i>	5
European Larch	<i>Larix decidua</i>	4
Hawthorn	<i>Crataegus monogyna</i>	4
Bracken	<i>Pteridium aquilinum</i>	5
Bramble	<i>Rubus fruticosus</i> agg.	4
Dog's Mercury	<i>Mercurialis perennis</i>	3

Table 49: Site 8, Habitat 1: Survey Details

Site Name	Site 8 Habitat 1
Date	15/07/2022
Surveyors	Dermot McKee & Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Meadow grassland with a narrow ditch (approx. 1 m width, 5 cm depth slow flow).
Management Notes	No current management apparent.
Condition Notes	Little undisturbed; good species diversity.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1
Field Cover (%)	100
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	N/A
Thatch	N/A
Bare Ground	N/A

Other Notes	This is Priority Habitat. Surrounding land use may be affecting the margins causing a tendency towards MG1c-type grassland in these areas. However, overall, the area may be considered as a reasonable example of MG4 grassland.
BNG Habitat	Lowland hay meadows g3a5
BNG Condition	Moderate condition
NVC Community	MG4c (some tendency towards MG1c, particularly around margins)

Table 50: Site 8, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	374386, 516701	
Species List		
Common Name	Scientific Name	Domin Scale
Meadowsweet	Filipendula ulmaria	6
Yorkshire-fog	Holcus lanatus	7
Sharp-flowered rush	Juncus acutiflorus	2
Meadow vetchling	Lathyrus pratensis	4
Greater bird's-foot-trefoil	Lotus pedunculatus	2
Great Burnet	Sanguisorba officinalis	2
Marsh Cinquefoil	Comarum palustre	1

Table 51: Site 8, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	374395, 516693	
NY7439516693		
Common Name	Scientific Name	Domin Scale
Meadowsweet	Filipendula ulmaria	6

Yorkshire-fog	Holcus lanatus	6
Red Fescue	Festuca rubra	3
Timothy	Phleum pratense	1
Meadow Vetchling	Lathyrus pratensis	3
Sharp-Flowered Rush	Juncus acutiflorus	4
Marsh Cinquefoil	Comarum palustre	2
Meadow Buttercup	Ranunculus acris	1

Table 52: Site 8, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)		
374369, 516699		
Species List		
Common Name	Scientific Name	Domin Scale
Meadowsweet	Filipendula ulmaria	7
False Oat-Grass	Arrhenatherum elatius	4
Yorkshire-fog	Holcus lanatus	4
Common Bent	Agrostis capillaris	2
Cock's-Foot	Dactylis glomerata	3
Meadow Vetchling	Lathyrus pratensis	1
Great Burnet	Sanguisorba officinalis	1

Table 53: Site 8, Habitat 2: Survey Details

Site Name	Site 8 Habitat 2
Date	15/07/2022
Surveyors	Dermot McKee & Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid

Site/Vegetation Description	Very heavily grazed and managed rush pasture. Recently cut, and damaged, to very short sward making accurate NVC assessment impossible. However, of little botanical interest and not Priority Habitat.
Management Notes	Heavily grazed; cut to control rushes.
Condition Notes	Poor condition because of uniform very short sward and damage from cutting.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	<0.1
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	N/A
Thatch	N/A
Bare Ground	<5%
Other Notes	Central grid reference = NY 74296 16791. Species poor so no NVC or species list.
BNG Habitat	Other neutral grassland with scattered rushes g3c, 14
BNG Condition	Poor
NVC Community	N/A

Table 54: Site 9, Habitat 1: Survey Details

Site Name	9
Date	23/06/22
Surveyors	Paul Wolstenholme & Fraser Allen
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Small isolated grass verge of mostly even tall sward at entrance of HGV facility.
Management Notes	Regularly mown at edge but only periodically mown further down bank.
Condition Notes	Diverse sward with few species indicative of sub-optimal condition - mixed height sward due to regular mowing of edge and no areas of bare ground, scrub or bracken - Not priority NVC habitat however.
Slope	30
Aspect	NE
Soil pH	Unknown
Soil Depth (cm)	Unknown
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.4
Field Cover (%)	100

Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	50
Leaf Litter	None
Thatch	Beginning to thatch but not yet significant
Bare Ground	0
Other Notes	Access only to adjacent path so some grasses in vegetative state may have been missed - unlikely to significantly affect results - area very small, only one quadrat required
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Moderate
NVC Community	MG1e - Arrhenatherum elatius grassland, Centaurea nigra sub-community

Table 55: Site 9, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	351334, 528896	
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	Arrhenatherum elatius	3
Yorkshire-Fog	Holcus lanatus	7
Hedge Bedstraw	Galium mollugo	6
Silverweed	Potentilla anserina	3
Yarrow	Achillea millefolium	3
Cowslip	Primula veris	5
Meadow Vetchling	Lathyrus pratensis	3
Common Sedge	Carex nigra	4
Common Mallow	Malva sylvestris	2
Lady's Mantle	Alchemilla vulgaris agg.	3

Rosebay Willowherb	Chamerion angustifolium	2
Rough Meadow-Grass	Poa trivialis	4
Common Knapweed	Centaurea nigra	7
Common Ragwort	Senecio jacobaea	1
Ribwort Plantain	Plantago lanceolata	2
Field Horsetail	Equisetum arvense	2
Common Spotted-Orchid	Dactylorhiza fuchsii	2
Hairy Sedge	Carex hirta	3
Barren Brome	Anisantha sterilis	3
Great Willowherb	Epilobium hirsutum	1
Ground		
Neat Feather Moss	Pseudoscleropodium purum	7

Table 56: Site 10, Habitat 1: Survey Details

Site Name	10
Date	06/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Mature and semi mature mixed woodland on banks of River Eden with typical understorey vegetation - relative abundance of understorey shrubs and woodland indicator species present - mix of native and non native tree species.
Management Notes	Some planting evident but no other signs of management
Condition Notes	No significant deadwood, evidence of grazing present and mix of native and non native species - some signs of regeneration however.
Slope	30

Aspect	SW
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	60
Understory/Shrub Layer height (m)	4
Understorey Cover (%)	25
Field Layer height (mean, m)	0.4
Field Cover (%)	30
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	25
Leaf Litter	<5
Thatch	<5
Bare Ground	40
Other Notes	Access from southern extent of woodland
BNG Habitat	w1b6 - Other upland mixed ashwoods - Priority Habitat
BNG Condition	Moderate
NVC Community	W8c/W8e/W9a - Difficult to distinguish type due to un-established ground-flora

Table 57: Site 10, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	367606, 521089	
Species List		
Common Name	Scientific Name	Domin Scale

Canopy		
Pedunculate Oak	<i>Quercus robur</i>	2
Sycamore	<i>Acer pseudoplatanus</i>	7
Downy Birch	<i>Betula pubescens</i>	2
Wild Cherry	<i>Prunus avium</i>	3
Small-Leaved Lime	<i>Tilia cordata</i>	2
Ash	<i>Fraxinus excelsior</i>	4
Shrubs		
Elder	<i>Sambucus nigra</i>	4
Ash	<i>Fraxinus excelsior</i>	2
Hawthorn	<i>Crataegus monogyna</i>	5
Field		
Bluebell	<i>Hyacinthoides non-scripta</i>	3
Pignut	<i>Conopodium majus</i>	3
Cock's-Foot	<i>Dactylis glomerata</i>	1
Male-Fern	<i>Dryopteris filix-mas</i>	1
Tufted Hair-Grass	<i>Deschampsia cespitosa</i>	1
Sycamore [Seedling]	<i>Acer pseudoplatanus</i>	3
Rough Meadow-Grass	<i>Poa trivialis</i>	4
Common Dog-Violet	<i>Viola riviniana</i>	3
Swan's-Neck Thyme-Moss	<i>Mnium hornum</i>	7

Table 58: Site 10, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50x50	4x4
Grid Reference (X, Y)		367574, 521175
Species List		

Common Name	Scientific Name	Domin Scale
Canopy		
Sycamore	<i>Acer pseudoplatanus</i>	7
Ash	<i>Fraxinus excelsior</i>	4
Downy Birch	<i>Betula pubescens</i>	2
Pedunculate Oak	<i>Quercus robur</i>	2
Wild Cherry	<i>Prunus avium</i>	1
Shrubs		
Hawthorn	<i>Crataegus monogyna</i>	3
Ash	<i>Fraxinus excelsior</i>	2
Elder	<i>Sambucus nigra</i>	3
Field		
Tufted Hair-Grass	<i>Deschampsia cespitosa</i>	4
Cock's-Foot	<i>Dactylis glomerata</i>	2
Pignut	<i>Conopodium majus</i>	4
Creeping Buttercup	<i>Ranunculus repens</i>	4
Common Dog-Violet	<i>Viola riviniana</i>	3
Wood Avens	<i>Geum urbanum</i>	3
Germander Speedwell	<i>Veronica chamaedrys</i>	3
Rough Meadow-Grass	<i>Poa trivialis</i>	4
Selfheal	<i>Prunella vulgaris</i>	3
Herb-Robert	<i>Geranium robertianum</i>	3
Rough-Stalked Feather-Moss	<i>Brachythecium rutabulum</i>	5
Common Smoothcap	<i>Atrichum undulatum</i>	5
Bluebell	<i>Hyacinthoides non-scripta</i>	2

Table 59: Site 10, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
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3	50x50	4x4
Grid Reference (X, Y)	367527, 521292	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Pedunculate Oak	Quercus robur	1
Wild Cherry	Prunus avium	4
Sycamore	Acer pseudoplatanus	4
Ash	Fraxinus excelsior	6
Downy Birch	Betula pubescens	1
Sessile Oak	Quercus petraea	1
Shrubs		
Hawthorn	Crataegus monogyna	6
Elder	Sambucus nigra	2
Field		
Tufted Hair-Grass	Deschampsia cespitosa	5
Rough Meadow-Grass	Poa trivialis	5
Cock's-Foot	Dactylis glomerata	4
Pignut	Conopodium majus	2
Herb-Robert	Geranium robertianum	4
Wood Avens	Geum urbanum	3
Common Dog-Violet	Viola riviniana	2
Common Smoothcap	Atrichum undulatum	3
Selfheal	Prunella vulgaris	1
Germander Speedwell	Veronica chamaedrys	3
Cleavers	Galium aparine	1
Common Nettle	Urtica dioica	1

Table 60: Site 10, Habitat 1: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	50x50	4x4
Grid Reference (X, Y)	367468, 521380	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Ash	Fraxinus excelsior	3
Wild Cherry	Prunus avium	2
Pedunculate Oak	Quercus robur	6
Shrubs		
Elder	Sambucus nigra	4
Hawthorn	Crataegus monogyna	4
Field		
Yorkshire-Fog	Holcus lanatus	7
Creeping Buttercup	Ranunculus repens	3
Bluebell	Hyacinthoides non-scripta	3
Germander Speedwell	Veronica chamaedrys	2
Selfheal	Prunella vulgaris	3
Rough Meadow-Grass	Poa trivialis	3
Bearded Couch	Elymus caninus	1
Common Dog-Violet	Viola riviniana	2
Cleavers	Galium aparine	2
False Oat-Grass	Arrhenatherum elatius	1
Himalayan Balsam	Impatiens glandulifera	1
Pignut	Conopodium majus	2
Rough-Stalked Feather-Moss	Brachythecium rutabulum	4
Common Haircap Moss	Polytrichum commune	1
Common Smoothcap	Atrichum undulatum	4
Wood Dock	Rumex sanguineus	2

Table 61: Site 10, Habitat 1: Quadrat 5

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
5	50x50	4x4
Grid Reference (X, Y)		
367415, 521498		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Pedunculate Oak	Quercus robur	5
Beech	Fagus sylvatica	1
Sycamore	Acer pseudoplatanus	5
Downy Birch	Betula pubescens	2
Ash	Fraxinus excelsior	2
Shrubs		
Elder	Sambucus nigra	4
Field		
Bracken	Pteridium aquilinum	3
Himalayan Balsam	Impatiens glandulifera	3
Creeping Buttercup	Ranunculus repens	4
Germander Speedwell	Veronica chamaedrys	3
Wood Avens	Geum urbanum	3
Sweet Vernal-Grass	Anthoxanthum odoratum	2
Cock's-Foot	Dactylis glomerata	2
Smooth Meadow-Grass	Poa pratensis	3
Pignut	Conopodium majus	2
Rough Meadow-Grass	Poa trivialis	4
Creeping Soft-Grass	Holcus mollis	2
Bramble	Rubus fruticosus agg.	1
Cleavers	Galium aparine	1

Table 62: Site 11, Habitat 1: Survey Details

Site Name	11
Date	15/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Habitat along relatively flat riverbank completely dominated by butterburr, preventing a diversity of species forming.
Management Notes	Cattle grazing present, but area appears to have been avoided
Condition Notes	Absence of scrub, bracken, and undesirable species, but uniform sward with limited diversity and high abundance of bare ground
Slope	0
Aspect	0
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.4

Field Cover (%)	70
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	0
Thatch	0
Bare Ground	30
Other Notes	Uniform habitat - Single quadrat only undertaken
BNG Habitat	g4 - Modified grassland
BNG Condition	Poor
NVC Community	No recognisable NVC community - potentially MG6a in absence of butterbur based on surrounding habitats.

Table 63: Site 11, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	378446, 515362	
Species List		
Common Name	Scientific Name	Domin Scale
Butterbur	<i>Petasites hybridus</i>	9
Cock's-Foot	<i>Dactylis glomerata</i>	4
Yorkshire-Fog	<i>Holcus lanatus</i>	4
False Oat-Grass	<i>Arrhenatherum elatius</i>	4
Common Nettle	<i>Urtica dioica</i>	3
Cow Parsley	<i>Anthriscus sylvestris</i>	2
Rough Meadow-Grass	<i>Poa trivialis</i>	5
Common Couch	<i>Elytrigia repens</i>	2
Creeping Buttercup	<i>Ranunculus repens</i>	1

Table 64: Site 11, Habitat 2: Survey Details

Site Name	11
Date	15/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Species poor cattle grazed grassland dominated by rank agricultural grasses with few herbs or forbs.
Management Notes	Cattle grazed.
Condition Notes	Species poor but with absence of scattered scrub, bracken and bare ground - loosely tussocky from grazing pressure. Ryegrass <25%
Slope	10
Aspect	W
Soil pH	Unknown
Soil Depth (cm)	Unknown
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.15
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	<5
Leaf Litter	0
Thatch	<5
Bare Ground	<5

Other Notes	Small area of uniform habitat - 2 quadrats undertaken
BNG Habitat	g4 - Modified grassland
BNG Condition	Moderate
NVC Community	MG6 - Lolium perenne-Cynosurus cristatus grassland, typical sub-community

Table 65: Site 11, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)		
378432, 515320		
Species List		
Common Name	Scientific Name	Domin Scale
Field		
Cock's-Foot	<i>Dactylis glomerata</i>	7
Yorkshire-Fog	<i>Holcus lanatus</i>	5
Creeping Bent	<i>Agrostis stolonifera</i>	4
Meadow Foxtail	<i>Alopecurus pratensis</i>	4
Germander Speedwell	<i>Veronica chamaedrys</i>	3
Red Fescue	<i>Festuca rubra</i>	4
Cow Parsley	<i>Anthriscus sylvestris</i>	1
Creeping Buttercup	<i>Ranunculus repens</i>	1
Common Sorrel	<i>Rumex acetosa</i>	1

Table 66: Site 11, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)		
378425, 515299		
Species List		
Common Name	Scientific Name	Domin Scale
Yorkshire-Fog	<i>Holcus lanatus</i>	6

Red Fescue	Festuca rubra	7
Common Bent	Agrostis capillaris	4
Crested Dog's-Tail	Cynosurus cristatus	1
White Clover	Trifolium repens	2
Yarrow	Achillea millefolium	1
Lady's-Mantle	Alchemilla vulgaris agg.	2
Creeping Buttercup	Ranunculus repens	1
Red Clover	Trifolium pratense	1
Pignut	Conopodium majus	1
Springy Turf-Moss	Rhytidiadelphus squarrosus	4

Table 67: Site 12, Habitat 1: Survey Details

Site Name	Site 12 Habitat 1
Date	30/06/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	20°C, BF2, patchy cloud, dry
Site/Vegetation Description	Grassland on either side of watercourse (Swine Gill). Planted with very young trees, but still very much grassland and not woodland. Grassland to north of Swine Gill less diverse (Habitat 1) and outgrown grass crop; to south more disturbed and more diverse (Habitat 2). No aquatic vegetation associated with the watercourse.
Management Notes	Thistles had recently been cut, especially around trees, on south side of Swine Gill.
Condition Notes	Condition poor. This is unmanaged former modified grassland. Sward height uniform, species diversity poor.
Slope	N/A

Aspect	N/A
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland.
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.3
Field Cover (%)	100
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	Negligible
Other Notes	Quadrats not necessary. Habitat fitted by eye.
BNG Habitat	Modified grassland g4
BNG Condition	Poor
NVC Community	MG7a

Table 68: Site 12, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	358816, 528892	
Species List		
Common Name	Scientific Name	Domin Scale
Common bent	Agrostis capillaris	7

Yorkshire-fog	Holcus lanatus	5
White clover	Trifolium repens	5
Perennial rye-grass	Lolium perenne	5

Table 69: Site 12, Habitat 2: Survey Details

Site Name	Site 12 Habitat 2
Date	30/06/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	20°C, BF2, patchy cloud, dry
Site/Vegetation Description	Grassland on either side of watercourse (Swine Gill). Planted with very young trees, but still very much grassland and not woodland. Grassland to north of Swine Gill less diverse (Habitat 1) and outgrown grass crop; to south more disturbed and more diverse (Habitat 2). No aquatic vegetation associated with the watercourse.
Management Notes	Thistles had recently been cut, especially around trees, on south side of Swine Gill.
Condition Notes	Condition poor. This is unmanaged former modified grassland/arable and still quite disturbed.
Slope	0
Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland.
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.3
Field Cover (%)	>95

Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5
Other Notes	4 representative quadrats undertaken
BNG Habitat	Modified grassland g4
BNG Condition	Poor
NVC Community	MG7-type. Community developed from arable in early stages of succession - Community not distinctive but MG7 is best fit.

Table 70: Site 12, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	358586, 528886	
Species List		
Common Name	Scientific Name	Domin Scale
Yorkshire-fog	Holcus lanatus	6
Red fescue	Festuca rubra	6
Creeping buttercup	Ranunculus repens	4
Oval sedge	Carex leporina	1
Dandelion [spp.]	Taraxacum [spp.]	1
Smooth meadow-grass	Poa pratensis	2
Marsh foxtail	Alopecurus geniculatus	1
Lesser stitchwort	Stellaria graminea	1
Common Nettle	Urtica dioica	1

Table 71: Site 12, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
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2	2x2	2x2
Grid Reference (X, Y)	358515, 528871	
Species List		
Common Name	Scientific Name	Domin Scale
Common Bent	Agrostis capillaris	4
Perennial Rye-Grass	Lolium perenne	2
Marsh Foxtail	Alopecurus geniculatus	5
Yorkshire-Fog	Holcus lanatus	4
American Willowherb	Epilobium ciliatum	4
Common Nettle	Urtica dioica	3
Prickly Sow-Thistle	Sonchus asper	3
White Clover	Trifolium repens	4
Creeping Thistle	Cirsium arvense	2
Wild Pansy	Viola tricolor	2
Dandelion [Spp.]	Taraxacum [spp.]	3

Table 72: Site 12, Habitat 2: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	358457, 528864	
Species List		
Common Name	Scientific Name	Domin Scale
Common Bent	Agrostis capillaris	4
Marsh Foxtail	Alopecurus geniculatus	4
Yorkshire-Fog	Holcus lanatus	4
American Willowherb	Epilobium ciliatum	5
Spear Thistle	Cirsium vulgare	3
Common Nettle	Urtica dioica	3
Prickly Sow-Thistle	Sonchus asper	2

White Clover	Trifolium repens	3
Common Sorrel	Rumex acetosa	1
Common Mouse-Ear	Cerastium fontanum	1
Creeping-Jenny	Lysimachia nummularia	1
Pointed Spear-Moss	Calliergonella cuspidata	4
Common Feather-Moss	Kindbergia praelonga	4
Springy Turf-Moss	Rhytidiadelphus squarrosus	4

Table 73: Site 12, Habitat 2: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	2x2	2x2
Grid Reference (X, Y)		
358413, 528862		
Species List		
Common Name	Scientific Name	Domin Scale
Marsh Foxtail	Alopecurus geniculatus	7
Yorkshire-Fog	Holcus lanatus	4
Dandelion [Spp.]	Taraxacum [spp.]	2
American Willowherb	Epilobium ciliatum	3
Common Nettle	Urtica dioica	2
Common Mouse-Ear	Cerastium fontanum	3
Common Feather-Moss	Kindbergia praelonga	3
Rough Meadow-Grass	Poa trivialis	5

Table 74: Site 13, Habitat 1: Survey Details

Site Name	Site 13 Habitat 1
Date	06/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid

Site/Vegetation Description	Mature woodland on a steep slope down to the river Eden. Some notable examples of large mature/over mature wild cherry. Himalayan balsam very occasionally present.
Management Notes	No current management apparent
Condition Notes	Age structure of trees not greatly varied and little evidence of regeneration, however good quantities of fallen deadwood in places (including complete trees). Ground flora extensive, relatively species poor, but indicative of woodland in at least moderate condition. Occasional gaps in canopy. Deer clearly present (many tracks) and individuals seen. Clearly high grazing pressure.
Slope	Steep south facing
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18 m
Canopy Cover (%)	85%
Understory/Shrub Layer height (m)	4 m
Understorey Cover (%)	10%
Field Layer height (mean, m)	0.4 m
Field Cover (%)	95%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	80%
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	<5%
Other Notes	Priority Habitat
BNG Habitat	Upland mixed ash woods w1b

BNG Condition	Moderate
NVC Community	W8. No distinct sub-community.

Table 75: Site 13, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference	366833, 521740	
Species List		
Common Name	Scientific Name	Domin Scale
Ash	Fraxinus excelsior	2
Sycamore	Acer pseudoplatanus	3
Wych elm	Ulmus glabra	2
Hazel	Corylus avellana	2
Hawthorn	Crataegus monogyna	2
Blackthorn	Prunus spinosa	3
Dog's mercury	Mercurialis perennis	9
Bluebell	Hyacinthoides non-scripta	3
Hedge woundwort	Stachys sylvatica	2
Bearded couch	Elymus caninus	2
Cleavers	Galium aparine	1
Fox-tail feather-moss	Thamnobryum alopecurum	9

Table 76: Site 13, Habitat 2: Survey Details

Site Name	Site 13 Habitat 2
Date	06/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid

Site/Vegetation Description	Strip of mixed plantation woodland along the A66 with a short length of Arrhenatherum neutral grassland verge at western end. No botanical interest. Himalayan balsam occasionally present.
Management Notes	No current management apparent
Condition Notes	Grazed (deer). Himalayan balsam present. Age structure of trees with little variation. Very little standing or fallen dead wood. Some accumulations of rubbish.
Slope	Relatively flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	16 m
Canopy Cover (%)	80%
Understory/Shrub Layer height (m)	2 m
Understorey Cover (%)	10%
Field Layer height (mean, m)	0.4 m
Field Cover (%)	95%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	80%
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	<5%
Other Notes	Species poor so no NVC or species list.
BNG Habitat	w1h
BNG Condition	Poor

NVC Community	Plantation N/A
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Table 77: Site 14, Habitat 1: Survey Details

Site Name	14
Date	07/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Loose sparsely vegetated bare ground as car parking area for shooting range.
Management Notes	N/A
Condition Notes	Very sparse communities present, mostly bare loose substrate.
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Sparsely vegetated area
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.05
Field Cover (%)	5
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	N/A

Thatch	N/A
Bare Ground	95
Other Notes	Ruderal Habitat - NVC not suitable, species list only compiled
BNG Habitat	Urban - Ruderal/Ephemeral - u1b 17
BNG Condition	Poor
NVC Community	No recognisable NVC community

Table 78: Site 14, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	373473, 517492	
Species List		
Common Name	Scientific Name	Domin Scale
Lesser Burdock	<i>Arctium minus</i>	3
False Oat-Grass	<i>Arrhenatherum elatius</i>	3
Creeping Buttercup	<i>Ranunculus repens</i>	3
Broad-Leaved Dock	<i>Rumex obtusifolius</i>	3
Ribwort Plantain	<i>Plantago lanceolata</i>	3
Red Fescue	<i>Festuca rubra</i>	3
Selfheal	<i>Prunella vulgaris</i>	3
Common Mouse-Ear	<i>Cerastium fontanum</i>	3
Dandelion [Spp.]	<i>Taraxacum [spp.]</i>	3
Yorkshire-Fog	<i>Holcus lanatus</i>	3
Common Ragwort	<i>Senecio jacobaea</i>	3
White Clover	<i>Trifolium repens</i>	3
Common Stork's-Bill	<i>Erodium cicutarium</i>	3
Common Bent	<i>Agrostis capillaris</i>	3
Dove's-Foot Crane's-Bill	<i>Geranium molle</i>	3

Table 79: Site 14, Habitat 2: Survey Details

Site Name	14
Date	07/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Plantation woodland at edge of site - trees all same age with bare understorey.
Management Notes	Access path through site.
Condition Notes	Mixed plantation - poor.
Slope	10
Aspect	W
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	85
Understorey/Shrub Layer height (m)	0
Understorey Cover (%)	0
Field Layer height (mean, m)	0.03
Field Cover (%)	10
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	Minor
Thatch	0
Bare Ground	90
Other Notes	Area only large enough for single quadrat
BNG Habitat	w1h6 - Other woodland; mixed; mainly conifer

BNG Condition	Poor
NVC Community	No recognisable NVC community

Table 80: Site 14, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	373651, 517390	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Rowan	<i>Sorbus aucuparia</i>	1
Beech	<i>Fagus sylvatica</i>	5
Pedunculate Oak	<i>Quercus robur</i>	1
Alder	<i>Alnus glutinosa</i>	1
Scot's Pine	<i>Pinus sylvestris</i>	6
Silver Birch	<i>Betula pendula</i>	4
Field		
Rough Meadow-Grass	<i>Poa trivialis</i>	2
Red Campion	<i>Silene dioica</i>	1
Yorkshire-Fog	<i>Holcus lanatus</i>	1
Germander Speedwell	<i>Veronica chamaedrys</i>	2
Smooth Meadow-Grass	<i>Poa pratensis</i>	2

Table 81: Site 14, Habitat 3: Survey Details

Site Name	14
Date	07/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid

Site/Vegetation Description	Newly planted young woodland as part of mitigation scheme - Canopy not yet established - Classified as neutral grassland with scattered trees currently, but may develop into high forest over time.
Management Notes	Tree guards still present. Field layer appears unmanaged
Condition Notes	Uniform sward with high abundance of suboptimal species. Absence of bare ground however.
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	5
Canopy Cover (%)	50
Understory/Shrub Layer height (m)	0
Understorey Cover (%)	0
Field Layer height (mean, m)	0.5
Field Cover (%)	100
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	0
Thatch	Minor
Bare Ground	0
Other Notes	Young planted habitat - Detailed species list compiled
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Moderate

NVC Community	MG1b - Arrhenatherum elatius grassland, Urtica dioica sub-community - W11 type woodland may develop over time from planting scheme.
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Table 82: Site 14, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)		
373506, 517459		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Silver Birch	Betula pendula	4
Downy Birch	Betula pubescens	4
Ash	Fraxinus excelsior	3
Pedunculate Oak	Quercus robur	3
Alder	Alnus glutinosa	3
Grey Willow	Salix cinerea	4
White Willow	Salix alba	3
Field		
Common Nettle	Urtica dioica	5
False Oat-Grass	Arrhenatherum elatius	5
Cock's-Foot	Dactylis glomerata	5
Yorkshire-Fog	Holcus lanatus	5
Rough Meadow-Grass	Poa trivialis	5
Smooth Meadow-Grass	Poa pratensis	4
Cleavers	Galium aparine	5
Creeping Thistle	Cirsium arvense	5
Meadow Buttercup	Ranunculus acris	4

Table 83: Site 14, Habitat 4: Survey Details

Site Name	14
Date	07/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Small isolated section of Scots pine plantation, with native trees at edge - understorey of ruderal herbs and rank grasses.
Management Notes	Fenced boundary but unlikely to prevent grazing.
Condition Notes	Plantation woodland - poor.
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	90
Understory/Shrub Layer height (m)	0
Understorey Cover (%)	0
Field Layer height (mean, m)	0.7
Field Cover (%)	85
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	0
Thatch	Minor

Bare Ground	20
Other Notes	Obvious plantation woodland - Detailed species list compiled
BNG Habitat	w2b - Other Scot's Pine woodland
BNG Condition	Poor
NVC Community	No recognisable NVC community. W18 type but outside of Scotland

Table 84: Site 14, Habitat 4: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)		
373437, 517399		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Scots Pine	<i>Pinus sylvestris</i>	8
Ash	<i>Fraxinus excelsior</i>	3
Sycamore	<i>Acer pseudoplatanus</i>	3
Field		
Common Nettle	<i>Urtica dioica</i>	7
Cleavers	<i>Galium aparine</i>	5
False Oat-Grass	<i>Arrhenatherum elatius</i>	5
Cock's-Foot	<i>Dactylis glomerata</i>	5
Germander Speedwell	<i>Veronica chamaedrys</i>	4
Crosswort	<i>Cruciata laevipes</i>	3

Table 85: Site 14, Habitat 5: Survey Details

Site Name	14
Date	07/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht

Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Rough marshy grassland, likely planted as part of mitigation scheme - moderate diversity with high abundance of rank grass species - with scattered trees and a small drain running through the central area.
Management Notes	Likely to be subject to low intensity mowing regime.
Condition Notes	All same sward height with significant abundance of suboptimal species. Absence of bare ground and significant density of scrub.
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.5
Field Cover (%)	100
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	0
Thatch	0
Bare Ground	0
Other Notes	None
BNG Habitat	g3c - Other neutral grassland

BNG Condition	Moderate
NVC Community	MG9b - <i>Holcus lanatus</i> - <i>Deschampsia cespitosa</i> grassland, <i>Arrhenatherum elatius</i> sub-community

Table 86: Site 14, Habitat 5: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	373473, 517390	
Species List		
Common Name	Scientific Name	Domin Scale
Field		
Yorkshire-Fog	<i>Holcus lanatus</i>	8
False Oat-Grass	<i>Arrhenatherum elatius</i>	4
Cock's-Foot	<i>Dactylis glomerata</i>	4
Brown Bent	<i>Agrostis vinealis</i>	4
Common Sorrel	<i>Rumex acetosa</i>	3
Creeping Thistle	<i>Cirsium arvense</i>	3
Creeping Buttercup	<i>Ranunculus repens</i>	3
Common Bent	<i>Agrostis capillaris</i>	3
Cow Parsley	<i>Anthriscus sylvestris</i>	1
Rough Meadow-Grass	<i>Poa trivialis</i>	2
Springy Turf-Moss	<i>Rhytidiadelphus squarrosus</i>	2

Table 87: Site 14, Habitat 5: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	373511, 517367	
Species List		

Common Name	Scientific Name	Domin Scale
Field		
Yorkshire-Fog	Holcus lanatus	5
False Oat-Grass	Arrhenatherum elatius	8
Common Bent	Agrostis capillaris	4
Rough Meadow-Grass	Poa trivialis	3
Sweet Vernal-Grass	Anthoxanthum odoratum	2
Common Sorrel	Rumex acetosa	2
Creeping Buttercup	Ranunculus repens	1
Lesser Stitchwort	Stellaria graminea	1
Ribwort Plantain	Plantago lanceolata	1
Hedge Bedstraw	Galium mollugo	8

Table 88: Site 14, Habitat 5: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)		373545, 517400
Species List		
Common Name	Scientific Name	Domin Scale
Field		
Tufted Hair-Grass	Deschampsia cespitosa	8
Yorkshire-Fog	Holcus lanatus	4
Cock's-Foot	Dactylis glomerata	3
False Oat-Grass	Arrhenatherum elatius	3
Pignut	Conopodium majus	1
Lesser Stitchwort	Stellaria graminea	3
Sweet Vernal-Grass	Anthoxanthum odoratum	2
Common Bent	Agrostis capillaris	3
Common Sorrel	Rumex acetosa	2
Common Knapweed	Centaurea nigra	2
Spear Thistle	Cirsium vulgare	2

Creeping Thistle	Cirsium arvense	1
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Table 89: Site 14, Habitat 5: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	2x2	2x2
Grid Reference (X, Y)		
373573, 517437		
Species List		
Common Name	Scientific Name	Domin Scale
Field		
False Oat-Grass	Arrhenatherum elatius	7
Yorkshire-Fog	Holcus lanatus	6
Red Fescue	Festuca rubra	3
Lesser Stitchwort	Stellaria graminea	4
Germander Speedwell	Veronica chamaedrys	3
Creeping Thistle	Cirsium arvense	1
Sweet Vernal-Grass	Anthoxanthum odoratum	3
Common Bent	Agrostis capillaris	2
White Clover	Trifolium repens	3
Tufted Hair-Grass	Deschampsia cespitosa	1
Yarrow	Achillea millefolium	1

Table 90: Site 14, Habitat 5: Quadrat 5

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
5	2x2	2x2
Grid Reference (X, Y)		
373593, 517399		
Species List		
Common Name	Scientific Name	Domin Scale

False Oat-Grass	Arrhenatherum elatius	7
Tufted Hair-Grass	Deschampsia cespitosa	5
Yorkshire-Fog	Holcus lanatus	4
Creeping Soft-Grass	Holcus mollis	1
Rough Meadow-Grass	Poa trivialis	2
Common Bent	Agrostis capillaris	3
Creeping Thistle	Cirsium arvense	1
Sharp-Flowered Rush	Juncus acutiflorus	2
Common Sorrel	Rumex acetosa	2
Germander Speedwell	Veronica chamaedrys	1
Lesser Stitchwort	Stellaria graminea	2
Common Nettle	Urtica dioica	1

Table 91: Site 15, Habitat 1: Survey Details

Site Name	15
Date	15/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Close mown, species-poor road verge dominated by typical rank grasses and herbs with rare hydrophilic species.
Management Notes	Intensively mown
Condition Notes	Short sward, poor diversity with frequent ryegrass but less than 25%
Slope	0
Aspect	0
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A

Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.02
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	0
Thatch	0
Bare Ground	<5
Other Notes	Small area, single quadrat undertaken for entire site
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Moderate
NVC Community	MG1 - Arrhenatherum elatius grassland; sub-community not distinctive

Table 92: Site 15, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	373429, 516733	
Species List		
Common Name	Scientific Name	Domin Scale
Cock's-Foot	Dactylis glomerata	7
Perennial Rye-Grass	Lolium perenne	5
Meadowsweet	Filipendula ulmaria	1
Hogweed	Heracleum sphondylium	1
Marsh Valerian	Valeriana dioica	1
Cleavers	Galium aparine	3

Silverweed	Potentilla anserina	1
Annual Meadow-Grass	Poa annua	5
False Oat-Grass	Arrhenatherum elatius	5
Common Nettle	Urtica dioica	3
Yorkshire-Fog	Holcus lanatus	4
White Clover	Trifolium repens	3
Rough Meadow-Grass	Poa trivialis	2
Common Mouse-Ear	Cerastium fontanum	1
Broad-Leaved Dock	Rumex obtusifolius	1
Sharp-Flowered Rush	Juncus acutiflorus	1
Dandelion [Spp]	Taraxacum [spp]	2

Table 93: Site 16, Habitat 1: Survey Details

Site Name	16
Date	230622
Surveyors	Paul Wolstenholme & Dermot McKee
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Mature ash woodland on banks of River Eamont - dense canopy with scattered scrub layer - extensive cover of ground woodland indicator species.
Management Notes	Limited management due to steep banks.
Condition Notes	Complex canopy with some self seeded young trees and saplings but limited open canopy for regeneration - significant large dead wood present however.
Slope	45
Aspect	N
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	no

Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	90
Understory/Shrub Layer height (m)	4
Field Layer height (mean, m)	0.75
Field Cover (%)	75
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	85
Leaf Litter	Minor
Thatch	Minor
Bare Ground	10
Other Notes	Limited access to woodland but similar composition throughout - access for 3 quadrats only available.
BNG Habitat	Other upland mixed ashwoods - w1b6 - Priority Habitat
BNG Condition	Moderate
NVC Community	W9a Fraxinus excelsior – Sorbus aucuparia – Mercurialis perennis woodland - Typical sub-community

Table 94: Site 16, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	351229, 528169	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Osier Willow	Salix viminalis	4
Ash	Fraxinus excelsior	8
Black Poplar [Spp]	Populus nigra [spp]	6

Pedunculate Oak	Quercus robur	2
Wych Elm	Ulmus glabra	3
Rowan	Sorbus aucuparia	1
Hazel	Corylus avellana	3
Shrub		
Elder	Sambucus nigra	2
Hawthorn	Crataegus monogyna	5
Dog-Rose	Rosa canina	2
Field		
Dog's Mercury	Mercurialis perennis	8
Bluebell	Hyacinthoides non-scripta	4
False Oat-Grass	Arrhenatherum elatius	4
Barren Brome	Anisantha sterilis	1
Wood Avens	Geum urbanum	2
Cleavers	Galium aparine	3
Male-Fern	Dryopteris filix-mas	2
Ramsons	Allium ursinum	3
Ground		
Rough-Stalked Feathermoss	Brachythecium rutabulum	9
Bare Ground And Leaf Litter	#N/A	5

Table 95: Site 16, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50x50	4x4
Grid Reference (X, Y)	351379, 528127	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Wych Elm	Ulmus glabra	5

Sycamore	Acer pseudoplatanus	6
Ash	Fraxinus excelsior	5
Black Poplar [Spp]	Populus nigra [spp]	2
Shrub		
Elder	Sambucus nigra	4
Hawthorn	Crataegus monogyna	4
Field		
Dog's Mercury	Mercurialis perennis	8
Ramsons	Allium ursinum	5
Ground		
Rough-Stalked Feathermoss	Brachythecium rutabulum	9
Bare Ground And Leaf Litter	#N/A	5

Table 96: Site 16, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	20x 100	4x4
Grid Reference (X, Y)		351494, 528151
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Pedunculate Oak	Quercus robur	2
Ash	Fraxinus excelsior	5
Sycamore	Acer pseudoplatanus	7
Cherry Spp.	Prunus spp.	2
Scots Pine	Pinus sylvestris	1
Wych Elm	Ulmus glabra	4
Sessile Oak	Quercus petraea	1
European Larch	Larix decidua	1

Shrub		
Hawthorn	<i>Crataegus monogyna</i>	4
Blackthorn	<i>Prunus spinosa</i>	3
Elder	<i>Sambucus nigra</i>	2
Silver Birch	<i>Betula pendula</i>	1
Hazel	<i>Corylus avellana</i>	4
Goat Willow	<i>Salix caprea</i>	1
Field		
Dog's Mercury	<i>Mercurialis perennis</i>	9
Wood Avens	<i>Geum urbanum</i>	4
Red Campion	<i>Silene dioica</i>	1
False Oat-Grass	<i>Arrhenatherum elatius</i>	4
Cleavers	<i>Galium aparine</i>	4
Broad Buckler-Fern	<i>Dryopteris dilatata</i>	1
Ground		
Rough Meadow-Grass	<i>Poa trivialis</i>	6
Rough-stalked feathermoss	<i>Brachythecium rutabulum</i>	9
common ivy	<i>Hedera helix</i>	2
Common smoothcap moss	<i>Atrichum undulatum</i>	1
bare ground leaf litter	#N/A	4

Table 97: Site 17, Habitat 1: Survey Details

Site Name	17
Date	23/06/2022
Surveyors	Paul Wolstenholme & Fraser Allen
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Mixed deciduous woodland bank up planted with ornamental conifers, deciduous trees and shrubs - becomes fairly open towards the west - over mature native trees present.

Management Notes	Intensive mown management in open, flatter areas, otherwise only occasional pruning evident at edges.
Condition Notes	Some self seeded young trees and seedlings present but not wide spread - little dead wood and understorey dominated by rank grasses - possibly influenced by run off from sheep grazed pasture above.
Slope	40
Aspect	S
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	no
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	22
Canopy Cover (%)	75
Understory/Shrub Layer height (m)	4
Field Layer height (mean, m)	1.5
Field Cover (%)	70
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	30
Leaf Litter	Moderate
Thatch	Moderate
Bare Ground	25
Other Notes	Area only large enough for 3 quadrats
BNG Habitat	w1h5 - Other woodland; mixed; mainly broadleaved
BNG Condition	Moderate
NVC Community	No recognisable canopy NVC community - Understorey: W8e: <i>Geranium robertianum</i> sub-community indicating possible historic woodland community.

Table 98: Site 17, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	60x40	4x4
Grid Reference (X, Y)		
351174, 528581		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Hazel	<i>Corylus avellana</i>	1
European Hop-Hornbeam	<i>Ostrya carpinifolia</i>	1
Sour Cherry	<i>Prunus cerasus</i>	2
Sycamore	<i>Acer pseudoplatanus</i>	7
Beech	<i>Fagus sylvatica</i>	6
Sessile Oak	<i>Quercus petraea</i>	1
Wych Elm	<i>Ulmus glabra</i>	4
Lime	<i>Tilia x europaea</i>	1
White Poplar	<i>Populus alba</i>	1
Wilson's Peal Bush	<i>Exochorda giraldii wilsonii</i>	1
Magnolia Spp.	<i>Magnolia spp.</i>	1
Shrub		
Dog-Rose	<i>Rosa canina</i>	2
Hawthorn	<i>Crataegus monogyna</i>	4
Blackthorn	<i>Prunus spinosa</i>	5
Red Currant	<i>Ribes rubrum</i>	1
Snowberry	<i>Symphoricarpos albus</i>	4
Rhododendron	<i>Rhododendron ponticum</i>	2
Field		
Dog's Mercury	<i>Mercurialis perennis</i>	5
Common Nettle	<i>Urtica dioica</i>	4

Hogweed	<i>Heracleum sphondylium</i>	2
Bluebell	<i>Hyacinthoides non-scripta</i>	3
Common Bent	<i>Agrostis capillaris</i>	6
False Oat-Grass	<i>Arrhenatherum elatius</i>	4
Wood Avens	<i>Geum urbanum</i>	2
Red Campion	<i>Silene dioica</i>	4
Male-Fern	<i>Dryopteris filix-mas</i>	2
Cleavers	<i>Galium aparine</i>	5
Ground		
Rough-Stalked Feathermoss	<i>Brachythecium rutabulum</i>	5
Common Ivy	<i>Hedera helix</i>	6
Bare Ground & Leaf Litter	#N/A	7

Table 99: Site 17, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	100x25	4x4
Grid Reference (X, Y)	351084, 528610	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Hazel	<i>Corylus avellana</i>	1
Sycamore	<i>Acer pseudoplatanus</i>	4
Wild Cherry	<i>Prunus avium</i>	3
Laburnum [Spp.]	<i>Laburnum [spp.]</i>	1
Beech	<i>Fagus sylvatica</i>	5
Horse-Chestnut	<i>Aesculus hippocastanum</i>	4
Wych Elm	<i>Ulmus glabra</i>	2
Silver Birch	<i>Betula pendula</i>	1

Small-Leaved Lime	<i>Tilia cordata</i>	2
Ash	<i>Fraxinus excelsior</i>	1
Yew	<i>Taxus baccata</i>	5
Magnolia Stellata	<i>Magnolia stellata</i>	1
Bald Cypress	<i>Taxodium distichum</i>	1
Magnolia Grandiflora	<i>Magnolia grandiflora</i>	1
Monterey Cypress	<i>Cupressus macrocarpa</i>	1
Leyland Cypress	X <i>Cupressocyparis leylandii</i>	1
Magnolia Kobus	<i>Magnolia kobus</i>	1
Holly	<i>Ilex aquifolium</i>	1
Red Oak	<i>Quercus rubra</i>	1
Shrub		
Barberry [Spp.]	<i>Berberis [spp.]</i>	1
Dog-Rose	<i>Rosa canina</i>	3
Elder	<i>Sambucus nigra</i>	4
Snowberry	<i>Symphoricarpos albus</i>	1
Box	<i>Buxus sempervirens</i>	R
Field		
False Oat-Grass	<i>Arrhenatherum elatius</i>	8
Cock's-Foot	<i>Dactylis glomerata</i>	4
Rosebay Willowherb	<i>Chamerion angustifolium</i>	4
Common Nettle	<i>Urtica dioica</i>	2
Bluebell	<i>Hyacinthoides non-scripta</i>	2
Common Bent	<i>Agrostis capillaris</i>	4
Male-Fern	<i>Dryopteris filix-mas</i>	2
Garlic Mustard	<i>Alliaria petiolata</i>	2
Ground		
Common Ivy	<i>Hedera helix</i>	2
Bare Ground & Leaf Litter	#N/A	10

Table 100: Site 17, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	50x50	4x4
Grid Reference (X, Y)		351003, 528610
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
red oak	<i>Quercus rubra</i>	1
silver birch	<i>Betula pendula</i>	1
Monterey cypress	<i>Cupressus macrocarpa</i>	1
Lime	<i>Tilia x europaea</i>	1
Japanese red cedar	<i>Cryptomeria japonica elegans</i>	1
White spruce	<i>Picea glauca</i>	1
Antarctician beech	<i>Nothofagus antarctica</i>	1
Common ninebark	<i>Physocarpus opulifolius</i>	1
Wild Service-tree	<i>Sorbus torminalis</i>	1
beech	<i>Fagus sylvatica</i>	5
copper beech	<i>Fagus sylvatica f. purpurea</i>	1
Himalayan birch	<i>Betula utilis</i>	1
Japanese red cedar	<i>Cryptomeria japonica</i>	1
sycamore	<i>Acer pseudoplatanus</i>	5
Shrub		
snowberry	<i>Symphoricarpos albus</i>	8
box	<i>Buxus sempervirens</i>	4
rhododendron	<i>Rhododendron ponticum</i>	1
Field		
dog's mercury	<i>Mercurialis perennis</i>	9
bluebell	<i>Hyacinthoides non-scripta</i>	4
wood avens	<i>Geum urbanum</i>	3

cleavers	Galium aparine	2
Ground		
common ivy	Hedera helix	4
Rough-stalked feathermoss	Brachythecium rutabulum	4
bare ground and leaf litter	#N/A	9

Table 101: Site 18, Habitat 1: Survey Details

Site Name	18
Date	01.07.22
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Alder/birch wet woodland - very boggy understorey with significant dead wood and marshy understorey vegetation - possibly originally planted but now well established. Drainage channels present throughout. Sphagnum moss present but scattered
Management Notes	None evident
Condition Notes	All trees similar age but with several birch saplings - deer present and evidence of grazing. Significant large dead wood present throughout habitat
Slope	0
Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	Yes
Peat Depth (if present, cm)	5
Broad Habitat	Woodland

Canopy Layer Height (mean, m)	15
Canopy Cover (%)	75
Understory/Shrub Layer height (m)	4
Field Layer height (mean, m)	0.75
Field Cover (%)	80
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	30
Leaf Litter	0
Thatch	0
Bare Ground	5
Other Notes	Limited access available due to boggy ground - 3 quadrats only
BNG Habitat	w1d5 - Alder woodland on floodplains (H91E0) - Priority Habitat/Annex 1
BNG Condition	Moderate
NVC Community	W2a - Salix cinerea-Betula pubescens-Phragmites australis woodland, Alnus glutinosa-Filipendula ulmaria sub-community

Table 102: Site 18, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)		361727, 527055
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Alder	<i>Alnus glutinosa</i>	8
Ash	<i>Fraxinus excelsior</i>	1
Downy Birch	<i>Betula pubescens</i>	1
Scots Pine	<i>Pinus sylvestris</i>	1
Shrubs		
Hawthorn	<i>Crataegus monogyna</i>	2

Field		
Meadowsweet	Filipendula ulmaria	8
Raspberry	Rubus idaeus	3
Wood Dock	Rumex sanguineus	1
Bittersweet	Solanum dulcamara	1
Skullcap	Scutellaria galericulata	1
False Oat-Grass	Arrhenatherum elatius	2
Wood Avens	Geum urbanum	2
Rough Meadow-Grass	Poa trivialis	3
Rough-Stalked Feather-Moss	Brachythecium rutabulum	5
Common Tamarisk-Moss	Thuidium tamariscinum	2
Cleavers	Galium aparine	2
Broad Buckler-Fern	Dryopteris dilatata	1
Blunt-Leaved Bog-Moss	Sphagnum palustre	2

Table 103: Site 18, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50x50	4x4
Grid Reference (X, Y)		361675, 527120
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Alder	Alnus glutinosa	8
Ash	Fraxinus excelsior	2
Sycamore	Acer pseudoplatanus	1
Scots Pine	Pinus sylvestris	1
Downy Birch	Betula pubescens	1
Shrubs		
Honeysuckle	Lonicera periclymenum	1

Downy Birch	Betula pubescens	1
Hawthorn	Crataegus monogyna	1
Field		
Meadowsweet	Filipendula ulmaria	7
Rough Meadow-Grass	Poa trivialis	3
Common Reed	Phragmites australis	3
Broad Buckler-Fern	Dryopteris dilatata	1
Skullcap	Scutellaria galericulata	3
Floating Sweet-Grass	Glyceria fluitans	5
Marsh-Bedstraw	Galium palustre	1
Swan's-Neck Thyme-Moss	Mnium hornum	2
Pointed Spear-Moss	Calliergonella cuspidata	2
Bare Ground	#N/A	1

Table 104: Site 18, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	50x50	4x4
Grid Reference (X, Y)		361615, 527007
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Downy Birch	Betula pubescens	7
Sycamore	Acer pseudoplatanus	1
Ash	Fraxinus excelsior	4
Scots Pine	Pinus sylvestris	1
Alder	Alnus glutinosa	3
Shrubs		
Grey Willow	Salix cinerea	2

Raspberry	Rubus idaeus	1
Red Currant	Ribes rubrum	4
Field		
Meadowsweet	Filipendula ulmaria	5
Herb-Robert	Geranium robertianum	4
Marsh Valerian	Valeriana dioica	3
Rough Meadow-Grass	Poa trivialis	4
Tufted Hair-Grass	Deschampsia cespitosa	1
Marsh-Bedstraw	Galium palustre	4
Pointed Sparmoss	Calliergonella cuspidata	4
Rough-Stalked Feather-Moss	Brachythecium rutabulum	3
Common Haircap Moss	Polytrichum commune	3
Common Sedge	Carex nigra	1
Male-Fern	Dryopteris filix-mas	1
Butterbur	Petasites hybridus	1
Yorkshire-Fog	Holcus lanatus	1
Common Spotted-Orchid	Dactylorhiza fuchsii	1

Table 105: Site 19, Habitat 1: Survey Details

Site Name	Site 19
Date	07/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Area of damp/mire vegetation around a water body.
Management Notes	Sheep grazed.
Condition Notes	Moderate condition (sheep grazing is probably at too high a level to enhance rather than negatively affect species diversity/habitat structure).

Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	Possible
Peat Depth (if present, cm)	N/A
Broad Habitat	Wetland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.8
Field Cover (%)	> 95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	20
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	< 5
Other Notes	
BNG Habitat	lowland fens f2a 14, 16
BNG Condition	Moderate
NVC Community	M27c

Table 106: Site 19, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	373546, 517144	
Species List		

Common Name	Scientific Name	Domin Scale
Sharp-flowered rush	<i>Juncus acutiflorus</i>	9
Yorkshire-fog	<i>Holcus lanatus</i>	4
Marsh thistle	<i>Cirsium palustre</i>	3
Water mint	<i>Mentha aquatica</i>	3
Meadow vetchling	<i>Lathyrus pratensis</i>	1
Field horsetail	<i>Equisetum arvense</i>	2
Pointed spear-moss	<i>Calliergonella cuspidata</i>	6

Table 107: Site 19, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	373569, 517131	
Species List		
Common Name	Scientific Name	Domin Scale
Sharp-Flowered Rush	<i>Juncus acutiflorus</i>	9
Yorkshire-Fog	<i>Holcus lanatus</i>	5
Hedge Bedstraw	<i>Galium mollugo</i>	2
Greater Bird's-Foot-Trefoil	<i>Lotus pedunculatus</i>	3
Marsh Thistle	<i>Cirsium palustre</i>	2
Water Mint	<i>Mentha aquatica</i>	2
Pointed Spear-Moss	<i>Calliergonella cuspidata</i>	4
Meadowsweet	<i>Filipendula ulmaria</i>	1

Table 108: Site 19, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	373601, 517139	

Species List		
Common Name	Scientific Name	Domin Scale
Sharp-flowered rush	<i>Juncus acutiflorus</i>	8
Yorkshire-fog	<i>Holcus lanatus</i>	2
Marsh thistle	<i>Cirsium palustre</i>	1
Marsh valerian	<i>Valeriana dioica</i>	2
Meadow vetchling	<i>Lathyrus pratensis</i>	2
Meadowsweet	<i>Filipendula ulmaria</i>	2
Fen bedstraw	<i>Galium uliginosum</i>	1
Field horsetail	<i>Equisetum arvense</i>	1
Pointed spear-moss	<i>Calliergonella cuspidata</i>	5
Water mint	<i>Mentha aquatica</i>	3
Wild angelica	<i>Angelica sylvestris</i>	1

Table 109: Site 19, Habitat 1: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	2x2	2x2
Grid Reference (X, Y)	373645, 517109	
Species List		
Common Name	Scientific Name	Domin Scale
Sharp-flowered rush	<i>Juncus acutiflorus</i>	8
Yorkshire-fog	<i>Holcus lanatus</i>	3
Tufted hair-grass	<i>Deschampsia cespitosa</i>	3
Pointed spear-moss	<i>Calliergonella cuspidata</i>	6
Fen bedstraw	<i>Galium uliginosum</i>	2
Wild angelica	<i>Angelica sylvestris</i>	3
Water mint	<i>Mentha aquatica</i>	2
Marsh thistle	<i>Cirsium palustre</i>	1

Table 110: Site 19, Habitat 1: Quadrat 5

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
5	2x2	2x2
Grid Reference (X, Y)	373684, 517146	
Species List		
Common Name	Scientific Name	Domin Scale
Sharp-flowered rush	<i>Juncus acutiflorus</i>	6
Soft-rush	<i>Juncus effusus</i>	4
Yorkshire-fog	<i>Holcus lanatus</i>	5
Wild angelica	<i>Angelica sylvestris</i>	4
Marsh thistle	<i>Cirsium palustre</i>	2
Ragged-robin	<i>Lychnis flos-cuculi</i>	2
Common sorrel	<i>Rumex acetosa</i>	1
Springy turf-moss	<i>Rhytidiadelphus squarrosus</i>	6
Pointed spear-moss	<i>Calliergonella cuspidata</i>	4
Creeping buttercup	<i>Ranunculus repens</i>	1

Table 111: Site 19, Habitat 2: Survey Details

Site Name	Site 19
Date	07/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Areas of plantation woodland and narrow margins of reed swamp.
Management Notes	Recent minor tree pruning. No other management apparent.

Condition Notes	Moderate condition (plantation maturing, reasonably diverse ground flora with supporting reed swamp habitat).
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	Possible
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland.
Canopy Layer Height (mean, m)	12
Canopy Cover (%)	70
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.8
Field Cover (%)	90
Ground Layer height (above ground mean, m)	Negligible.
Ground Cover (%)	25
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<10.
Other Notes	Priority Habitat.
BNG Habitat	Wet woodland w1d.
BNG Condition	Moderate
NVC Community	Plantation and NVC not currently applicable but of W5-W7 type.

Table 112: Site 19, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4

Grid Reference (X, Y)		373651, 517080	
Species List			
Common Name	Scientific Name	Domin Scale	
Alder	<i>Alnus glutinosa</i>	5	
Ash	<i>Fraxinus excelsior</i>	4	
Scots Pine	<i>Pinus sylvestris</i>	4	
Sessile oak	<i>Quercus petraea</i>	3	
Wych elm	<i>Ulmus glabra</i>	3	
Soft-rush	<i>Juncus effusus</i>	5	
Tufted hair-grass	<i>Deschampsia cespitosa</i>	5	
Rough meadow-grass	<i>Poa trivialis</i>	5	
Floating sweet-grass	<i>Glyceria fluitans</i>	4	
Common nettle	<i>Urtica dioica</i>	4	
Creeping buttercup	<i>Ranunculus repens</i>	5	
Marsh thistle	<i>Cirsium palustre</i>	5	
Fen bedstraw	<i>Galium uliginosum</i>	4	
Marsh horsetail	<i>Equisetum palustre</i>	4	

Table 113: Site 20, Habitat 1: Survey Details

Site Name	Site 20
Date	01/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	17°C, BF2, patchy cloud, dry
Site/Vegetation Description	Wide road verge with line of young/semi-mature trees along boundary with road. Tarmac cycle path.
Management Notes	No recent management, but probably occasionally mown.

Condition Notes	Poor condition because habitat not structurally diverse, sward height uniform, relatively high incidence of undesirable species (especially nettle).
Slope	4°
Aspect	10°
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.8
Field Cover (%)	90
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	Negligible
Other Notes	Not necessary to use quadrats to characterise this habitat
BNG Habitat	Other Neutral Grassland g3c5
BNG Condition	Poor
NVC Community	MG1b

Table 114: Site 20, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2

Grid Reference (X, Y)	359091, 528650	
Species List		
Common Name	Scientific Name	Domin Scale
False oat-grass	<i>Arrhenatherum elatius</i>	8
Creeping thistle	<i>Cirsium arvense</i>	5
Selfheal	<i>Prunella vulgaris</i>	3
Tufted vetch	<i>Vicia cracca</i>	4
Cock's-foot	<i>Dactylis glomerata</i>	4
Creeping buttercup	<i>Ranunculus repens</i>	5
Yorkshire-fog	<i>Holcus lanatus</i>	4
Smooth tare	<i>Vicia tetrasperma</i>	3
Hedge woundwort	<i>Stachys sylvatica</i>	4
Common knapweed	<i>Centaurea nigra</i>	3
Broad-leaved dock	<i>Rumex obtusifolius</i>	4
Curled dock	<i>Rumex crispus</i>	4
Springy turf-moss	<i>Rhytidiadelphus squarrosus</i>	5
Smooth hawk's-beard	<i>Crepis capillaris</i>	3
Common Ragwort	<i>Senecio jacobaea</i>	4
Cleavers	<i>Galium aparine</i>	5
Common reed	<i>Phragmites australis</i>	3
Spear thistle	<i>Cirsium vulgare</i>	3
Common nettle	<i>Urtica dioica</i>	5
Lesser stitchwort	<i>Stellaria graminea</i>	3
Red fescue	<i>Festuca rubra</i>	3
Fox-and-cubs	<i>Pilosella aurantiaca</i>	3
Field forget-me-not	<i>Myosotis arvensis</i>	3
Oxeye daisy	<i>Leucanthemum vulgare</i>	3
Lady's-mantle	<i>Alchemilla mollis</i>	3
Perforate St-John's-wort	<i>Hypericum perforatum</i>	3
Ribwort plantain	<i>Plantago lanceolata</i>	4

Dandelion [spp.]	Taraxacum [spp.]	4
Cow parsley	Anthriscus sylvestris	3
Mugwort	Artemisia vulgaris	3
Prickly sow-thistle	Sonchus asper	3
Common sorrel	Rumex acetosa	3
Hazel	Corylus avellana	4
Alder	Alnus glutinosa	4
Ash	Fraxinus excelsior	4
Cherry [spp.]	Prunus [spp.]	4
Field maple	Acer campestre	4
Dog-rose	Rosa canina	4
Blackthorn	Prunus spinosa	4
Birch [spp.]	Betula [spp.]	4
Willow [spp.]	Salix [spp.]	4

Table 115: Site 21, Habitat 1: Survey Details

Site Name	21
Date	14/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Mixed screening woodland along A66, mostly dominated by semi-mature ash and sycamore, with dog's mercury understorey. In plantation state and not yet established.
Management Notes	None apparent along screening woodland - evidence of hibernacula creation in more established woodland.

Condition Notes	Planted screening with little dead wood but some signs of regeneration.
Slope	30
Aspect	N
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	10
Canopy Cover (%)	80
Understory/Shrub Layer height (m)	3
Understorey Cover (%)	10
Field Layer height (mean, m)	0.4
Field Cover (%)	60
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	15
Leaf Litter	<5
Thatch	None
Bare Ground	None
Other Notes	Area only large enough for 3 quadrats
BNG Habitat	w1g7 - Other broadleaved woodland types
BNG Condition	Moderate
NVC Community	developing W8e type woodland - Fraxinus excelsior-Acer campestre-Mercurialis perennis woodland, Geranium robertianum sub-community - not yet established however

Table 116: Site 21, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50 x 50	4 x 4
Grid Reference (X, Y)	408154, 513667	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Ash	<i>Fraxinus excelsior</i>	6
Sycamore	<i>Acer pseudoplatanus</i>	8
Yew	<i>Taxus baccata</i>	1
Wych Elm	<i>Ulmus glabra</i>	2
Beech	<i>Fagus sylvatica</i>	2
Horse-Chestnut	<i>Aesculus hippocastanum</i>	1
Lodgepole Pine	<i>Pinus contorta</i>	1
Shrubs		
Ash	<i>Fraxinus excelsior</i>	3
Hawthorn	<i>Crataegus monogyna</i>	1
Snowberry	<i>Symphoricarpos albus</i>	3
Cherry Laurel	<i>Prunus laurocerasus</i>	3
Raspberry	<i>Rubus idaeus</i>	3
Horse-Chestnut	<i>Aesculus hippocastanum</i>	2
Field		
Dog's Mercury	<i>Mercurialis perennis</i>	8
Cleavers	<i>Galium aparine</i>	3
Enchanter's-Nightshade	<i>Circaea lutetiana</i>	2
Rough-Stalked Feather-Moss	<i>Brachythecium rutabulum</i>	5
Hairy-Brome	<i>Bromopsis ramosa</i>	2
Male-Fern	<i>Dryopteris filix-mas</i>	1
Wood-Dock	<i>Rumex sanguineus</i>	1

Table 117: Site 21, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50 x 50	4 x 4
Grid Reference (X, Y)		
408247, 513621		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Wild Cherry	Prunus avium	1
Ash	Fraxinus excelsior	5
Sycamore	Acer pseudoplatanus	7
Wych Elm	Ulmus glabra	3
Yew	Taxus baccata	1
Beech	Fagus sylvatica	5
Shrubs		
Ash	Fraxinus excelsior	3
Sycamore	Acer pseudoplatanus	3
Wych Elm	Ulmus glabra	1
Raspberry	Rubus idaeus	3
Field		
Common Ivy	Hedera helix	10
Bramble	Rubus fruticosus agg.	4
Enchanter's-Nightshade	Circaea lutetiana	2
Common Hemp-Nettle	Galeopsis tetrahit	1
Male-Fern	Dryopteris filix-mas	2

Table 118: Site 21, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	50 x 50	4 x 4
Grid Reference (X, Y)		
408335, 513570		

Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Ash	Fraxinus excelsior	7
Beech	Fagus sylvatica	5
Sycamore	Acer pseudoplatanus	6
Wych Elm	Ulmus glabra	1
Pedunculate Oak	Quercus robur	1
Shrubs		
Hawthorn	Crataegus monogyna	1
Ash	Fraxinus excelsior	1
Sycamore	Acer pseudoplatanus	1
Field		
Dog's Mercury	Mercurialis perennis	8
Common Nettle	Urtica dioica	3
Cleavers	Galium aparine	3
Rough-Stalked Feather-Moss	Brachythecium rutabulum	4
Pignut	Conopodium majus	2

Table 119: Site 21, Habitat 2: Survey Details

Site Name	21
Date	14/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	More established oak woodland with sparse understorey, and over mature trees - dog's mercury and honeysuckle frequent in ground flora.

Management Notes	Evidence of hibernacula creation, no other indication of active management
Condition Notes	Mix of mature and over mature trees, with young trees and saplings present - some deadwood scattered across habitat - tree damage also present but less than 10%.
Slope	0
Aspect	North
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	80
Understory/Shrub Layer height (m)	3
Understorey Cover (%)	10
Field Layer height (mean, m)	0.4
Field Cover (%)	75
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	15
Leaf Litter	<5
Thatch	None
Bare Ground	None
Other Notes	Area uniform in composition - Single quadrat only
BNG Habitat	w1f - Lowland mixed deciduous woodland - Priority Habitat
BNG Condition	Moderate

NVC Community	W10a - Quercus robur-Pteridium aquilinum-Rubus fruticosus woodland, typical sub-community
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Table 120: Site 21, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50 x 50	4 x 4
Grid Reference (X, Y)		408331, 513493
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sessile Oak	Quercus petraea	1
Beech	Fagus sylvatica	5
Wych Elm	Ulmus glabra	2
Sycamore	Acer pseudoplatanus	5
Pedunculate Oak	Quercus robur	7
Sweet Chestnut	Castanea sativa	1
Wild Cherry	Prunus avium	1
Lawson's Cypress	Chamaecyparis lawsoniana	2
Horse-Chestnut	Aesculus hippocastanum	1
Ash	Fraxinus excelsior	1
Shrubs		
Cherry Laurel	Prunus laurocerasus	1
Elder	Sambucus nigra	3
Hawthorn	Crataegus monogyna	2
Raspberry	Rubus idaeus	1
Wild Cherry	Prunus avium	1
Holly	Ilex aquifolium	1
Field		

Dog's Mercury	Mercurialis perennis	4
Bramble	Rubus fruticosus agg.	4
Wood Avens	Geum urbanum	5
Lesser Burdock	Arctium minus	3
Broad-Leaved Willowherb	Epilobium montanum	2
Cock's-Foot	Dactylis glomerata	4
Yorkshire-Fog	Holcus lanatus	4
Common Bent	Agrostis capillaris	2
Rough-Stalked Feather-Moss	Brachythecium rutabulum	7
Common Dog-Violet	Viola riviniana	3
Wood Dock	Rumex sanguineus	1

Table 121: Site 22, Habitat 1: Survey Details

Site Name	22
Date	15/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Overgrown road verge with moderate diversity but highly thatched.
Management Notes	Close mown at edge.
Condition Notes	Tall sward with mown edge - limited scrub, bare ground.
Slope	0
Aspect	N/A
Soil pH	Unknown
Soil Depth (cm)	Unknown
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland

Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	0
Thatch	1
Bare Ground	<5
Other Notes	Area only large enough for single quadrat
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Moderate
NVC Community	MG1c - Arrhenatherum elatius grassland, Filipendula ulmaria sub-community

Table 122: Site 22, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)		
373459, 516718		
Species List		
Common Name	Scientific Name	Domin Scale
Field		
False Oat-Grass	Arrhenatherum elatius	7
Meadowsweet	Filipendula ulmaria	5
Tufted Vetch	Vicia cracca	3
Common Knapweed	Centaurea nigra	2
Hedge Bedstraw	Galium mollugo	2
Yorkshire-Fog	Holcus lanatus	4

Great Willowherb	Epilobium hirsutum	4
Cock's-Foot	Dactylis glomerata	1
Hogweed	Heracleum sphondylium	3
Crosswort	Cruciata laevipes	1
Yarrow	Achillea millefolium	1
Lesser Stitchwort	Stellaria graminea	1
Creeping Thistle	Cirsium arvense	1

Table 123: Site 22, Habitat 2: Survey Details

Site Name	22
Date	15/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Self-seeded, grey willow scrub along road verge with mostly bare understorey dominated by nettles. On flood plain of adjacent stream
Management Notes	None evident.
Condition Notes	Willow carr of single species with limited structural diversity.
Slope	0
Aspect	N/A
Soil pH	Unknown
Soil Depth (cm)	Unknown
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	4

Canopy Cover (%)	90
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.3
Field Cover (%)	40
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	0
Thatch	0
Bare Ground	60
Other Notes	Area of similar composition - single quadrat undertaken
BNG Habitat	w1d - wet woodland - developing Priority Habitat
BNG Condition	Moderate
NVC Community	developing W1 type woodland - Salix cinerea-Galium palustre woodland

Table 124: Site 22, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	373431, 516750	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Ash	Fraxinus excelsior	1
Grey Willow	Salix cinerea	9
Field		
Common Nettle	Urtica dioica	5
Meadowsweet	Filipendula ulmaria	5
Tufted Hair-Grass	Deschampsia cespitosa	4
Fen Bedstraw	Galium uliginosum	1

Cleavers	Galium aparine	2
Rough Meadow-Grass	Poa trivialis	4
Reed Canary-Grass	Phalaris arundinacea	1
False Oat-Grass	Arrhenatherum elatius	2

Table 125: Site 22, Habitat 3: Survey Details

Site Name	22
Date	15/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Overgrown patch of tall ruderal vegetation at end of road verge with scattered scrub.
Management Notes	Close mown at edge.
Condition Notes	High dominance of undesirable ruderal species and scrub with limited coverage of grasses. Fails all criteria
Slope	0
Aspect	N/A
Soil pH	Unknown
Soil Depth (cm)	Unknown
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1.5
Field Cover (%)	>95

Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	0
Thatch	1.3
Bare Ground	<5
Other Notes	Area only large enough for single quadrat
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Poor
NVC Community	MG1b - Arrhenatherum elatius grassland, Urtica dioica sub-community

Table 126: Site 22, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	373404, 516788	
Species List		
Common Name	Scientific Name	Domin Scale
Hawthorn	Crataegus monogyna	1
Rosebay Willowherb	Chamerion angustifolium	4
Common Nettle	Urtica dioica	8
Hedge Bedstraw	Galium mollugo	4
Hogweed	Heracleum sphondylium	3
Meadowsweet	Filipendula ulmaria	3
False Oat-Grass	Arrhenatherum elatius	4
Bramble	Rubus fruticosus agg.	3

Table 127: Site 23, Habitat 1: Survey Details

Site Name	23
Date	22/06/2022

Surveyors	Paul Wolstenholme & Fraser Allen
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Typical railway embankment on steep bank with abundant goat/grey willow and hawthorn. Protruding mature trees as canopy layer - understorey largely bare ground with scattered ruderal herbs.
Management Notes	Little evidence of management but high soil disturbance from rabbit burrowing and warren creation.
Condition Notes	Mix of woody species of varied age structure. Poorly developed edge and absence of rides/glades.
Slope (°)	45
Aspect	SE
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	13
Canopy Cover (%)	60
Understory/Shrub Layer height (m)	6
Field Layer height (mean, m)	0.5
Field Cover (%)	20
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	<5
Leaf Litter	0
Thatch	0
Bare Ground	90

Other Notes	Land parcel only large enough for 1 woodland quadrat.
BNG Habitat	h3h - Mixed scrub
BNG Condition	Moderate
NVC Community	No recognisable NVC community present - W21 type scrub dominant with scattered mature trees - <i>Salix sp.</i> abundant however.

Table 128: Site 23, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	125x20	4x4
Grid Reference (X, Y)	350586, 529032	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Ash	<i>Fraxinus excelsior</i>	2
Goat Willow	<i>Salix caprea</i>	7
Wych Elm	<i>Ulmus glabra</i>	2
Grey Willow	<i>Salix cinerea</i>	5
Downy Birch	<i>Betula pubescens</i>	1
Sycamore	<i>Acer pseudoplatanus</i>	5
Pedunculate Oak	<i>Quercus robur</i>	5
Shrub		
Elder	<i>Sambucus nigra</i>	5
Hawthorn	<i>Crataegus monogyna</i>	7
Dog-Rose	<i>Rosa canina</i>	1
Field		
Common Nettle	<i>Urtica dioica</i>	4
Cleavers	<i>Galium aparine</i>	1
Lesser Stitchwort	<i>Stellaria graminea</i>	2

Great Willowherb	Epilobium hirsutum	1
Male-Fern	Dryopteris filix-mas	4
Creeping Buttercup	Ranunculus repens	1
Dog's Mercury	Mercurialis perennis	1
Smooth Meadow-Grass	Poa pratensis	1
Wood Avens	Geum urbanum	1
Field Forget-Me-Not	Myosotis arvensis	1
Hedge Bedstraw	Galium mollugo	1
Ground		
Rough-Stalked Feathermoss	Brachythecium rutabulum	2
Bare Ground & Leaf Litter	#N/A	9

Table 129: Site 24, Habitat 1: Survey Details

Site Name	24
Date	29/06/2022
Surveyors	Paul Wolstenholme & Dermot McKee
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Mixed woodland as screening corridor between A66 and busy minor road - mix of conifer and broadleaved trees of similar age with ruderal vegetation and grasses as understorey.
Management Notes	Limited management evident, likely to be occasionally pruned to avoid overhanging branches.
Condition Notes	Plantation woodland with few signs of regeneration and no significant deadwood.
Slope	0

Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	14
Canopy Cover (%)	70
Understory/Shrub Layer height (m)	5
Field Layer height (mean, m)	0.5
Field Cover (%)	75
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	30
Leaf Litter	Minor
Thatch	Major
Bare Ground	70
Other Notes	Area all of similar composition - 3 quadrats conducted to confirm due to large area
BNG Habitat	w1h6 - Other woodland; mixed; mainly conifer
BNG Condition	Poor
NVC Community	No recognisable NVC community

Table 130: Site 24, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	352385, 529277	
Species List		
Common Name	Scientific Name	Domin Scale

Canopy		
Sessile Oak	Quercus petraea	1
Ash	Fraxinus excelsior	2
Pedunculate Oak	Quercus robur	3
Scots Pine	Pinus sylvestris	8
Sycamore	Acer pseudoplatanus	4
Shrub		
Hawthorn	Crataegus monogyna	4
Elder	Sambucus nigra	4
Dog-Rose	Rosa canina	1
Field		
Common Nettle	Urtica dioica	7
Bramble	Rubus fruticosus agg.	5
Cleavers	Galium aparine	7
Broad Buckler-Fern	Dryopteris dilatata	2
Ground		
Rough Stalked Feather Moss	Brachythecium rutabulum	6
Bare ground & Leaf Litter	#N/A	8

Table 131: Site 25, Habitat 1: Survey Details

Site Name	16
Date	29/06/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Managed road verge, with unmanaged area left along fence boundary, with some scattered scrub as part of remnant hedgerow.

Management Notes	70% intensively mown
Condition Notes	Mixed sward but with abundance of suboptimal species - limited bare ground and scrub.
Slope	0
Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.25
Field Cover (%)	100
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	None
Thatch	Minor
Bare Ground	0
Other Notes	Road verge - surveyed from adjacent field - Similar composition, 3 quadrats only required for classification
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Moderate
NVC Community	MG1 - Arrhenatherum elatius grassland; sub-community not distinctive

Table 132: Site 25, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	354698, 528994	
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	Arrhenatherum elatius	6
Cock's-Foot	Dactylis glomerata	6
Yorkshire-Fog	Holcus lanatus	2
Hedge Bedstraw	Galium mollugo	3
Meadow Vetchling	Lathyrus pratensis	5
Ground-Elder	Aegopodium podagraria	4
Bush Vetch	Vicia sepium	2
Hogweed	Heracleum sphondylium	2

Table 133: Site 25, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	354819, 528984	
Species List		
Common Name	Scientific Name	Domin Scale
Common Sorrel	Rumex acetosa	3
False Oat-Grass	Arrhenatherum elatius	5
Tufted Vetch	Vicia cracca	4
Yorkshire-Fog	Holcus lanatus	5
Common Knapweed	Centaurea nigra	2
Meadow Buttercup	Ranunculus acris	3
Broad-Leaved Dock	Rumex obtusifolius	1
Common Mouse-Ear	Cerastium fontanum	3
Barren Brome	Anisantha sterilis	4

Tufted Hair-Grass	Deschampsia cespitosa	1
Creeping Buttercup	Ranunculus repens	1
Bush Vetch	Vicia sepium	1
Red Fescue	Festuca rubra	4
Creeping Bent	Agrostis stolonifera	2
Hairy Sedge	Carex hirta	1

Table 134: Site 25, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)		354946, 528983
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	Arrhenatherum elatius	7
Cock's-Foot	Dactylis glomerata	6
Common Nettle	Urtica dioica	3
Hogweed	Heracleum sphondylium	2
Hedge Woundwort	Stachys sylvatica	2
Cleavers	Galium aparine	4
Oxeye Daisy	Leucanthemum vulgare	3
Hedge Bedstraw	Galium mollugo	3
Yorkshire-Fog	Holcus lanatus	4
Creeping Thistle	Cirsium arvense	1

Table 135: Site 26, Habitat 1: Survey Details

Date	14/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Recently felled woodland that has been rotated with artificial drainage channels forming fen habitat - 3 separate communities present, damp/periodically inundated soils, with drainage channels throughout: Habitat 1: tall ruderal dominated by thistles with rank grasses with scattered willow scrub and young black poplar. Habitat in transitional stage. Species composition tends towards 'wet' grassland rather than fen habitat.
Management Notes	Felled woodland - possible to be replanted - drainage channel throughout habitat.
Condition Notes	Even tall sward, high abundance of undesirable species and invasive species present - scattered scrub >5%. Water table not permanently at surface. Fails most criteria
Slope	0
Aspect	0
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	None
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	4
Understorey Cover (%)	20
Field Layer height (mean, m)	1
Field Cover (%)	95

Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	None
Thatch	None
Bare Ground	<5
Other Notes	5 quadrats taken over area to define different habitat types. Appears to be on wet/water logged soils, however difficult to determine hydrological conditions due to dry weather during survey. A precautionary approach has therefore been applied.
BNG Habitat	g3c – Other neutral grassland
BNG Condition	Poor
NVC Community	OV26d - Epilobium hirsutum community, Arrhenatherum elatius-Heracleum sphondylium sub-community

Table 136: Site 26, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)		412165, 510249
Species List		
Common Name	Scientific Name	Domin Scale
Shrubs		
Crack-Willow	Salix fragilis	4
Grey Willow	Salix cinerea	4
Black-Poplar [Spp]	Populus nigra [ssp]	3
Field		
Creeping Thistle	Cirsium arvense	5
Spear Thistle	Cirsium vulgare	4
Great Willowherb	Epilobium hirsutum	4
Wild Teasel	Dipsacus fullonum	2
Yorkshire-Fog	Holcus lanatus	4

Marsh Woundwort	Stachys palustris	2
Red Champion	Silene dioica	3
Herb-Robert	Geranium robertianum	1
Cleavers	Galium aparine	1
Himalayan Balsam	Impatiens glandulifera	1
Soft-Rush	Juncus effusus	1
Compact Rush	Juncus conglomeratus	1
Curled Dock	Rumex crispus	1
Squirreltail Fescue	Vulpia bromoides	2
Ground-Elder	Aegopodium podagraria	1
Cock's-Foot	Dactylis glomerata	4
Rough Meadow-Grass	Poa trivialis	3
Nipplewort	Lapsana communis	1
Dog's Mercury	Mercurialis perennis	1

Table 137: Site 26, Habitat 2: Survey Details

Site Name	26
Date	14/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Recently felled woodland that has been rotated with artificial drainage channels forming fen habitat - 3 separate communities present: Habitat 2: Common reed dominated area but not on permanently inundated soils; with scattered willow scrub. Habitat in transitional stage forming from 'wet' neutral grassland that will have developed post-felling.
Management Notes	Felled woodland - possible to be replanted - drainage channel throughout habitat.

Condition Notes	Even tall sward, high abundance of undesirable species and invasive species present - scattered scrub >5%. Water levels not at surface permanently. Fails most criteria
Slope	0
Aspect	0
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	Yes
Peat Depth (if present, cm)	5
Broad Habitat	Fen/Mire
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	4
Understorey Cover (%)	20
Field Layer height (mean, m)	1
Field Cover (%)	95
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	None
Thatch	None
Bare Ground	<5
Other Notes	5 quadrats undertaken over entire area to split habitat types. Appears to be on wet/water logged soils, however difficult to determine hydrological conditions due to dry weather during survey. A precautionary approach has therefore been applied.
BNG Habitat	f2a - Lowland fens - Priority Habitat
BNG Condition	Poor
NVC Community	S26a - Phragmites australis-Urtica dioica tall-herb fen, Filipendula ulmaria sub-community

Table 138: Site 26, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)		412178, 510314
Species List		
Common Name	Scientific Name	Domin Scale
Common Reed	Phragmites australis	8
Meadowsweet	Filipendula ulmaria	5
Ground-Elder	Aegopodium podagraria	5
Marsh Thistle	Cirsium palustre	4
Spear Thistle	Cirsium vulgare	2
Hedge Woundwort	Stachys sylvatica	2
Yorkshire-Fog	Holcus lanatus	3
Fen Bedstraw	Galium uliginosum	2
Soft-Rush	Juncus effusus	3
Hard Rush	Juncus inflexus	3
Compact Rush	Juncus conglomeratus	3
Cock's-Foot	Dactylis glomerata	2
Wood Avens	Geum urbanum	2
Rough Meadow-Grass	Poa trivialis	2
Perforate St John's-Wort	Hypericum perforatum	1
Tufted Hair-Grass	Deschampsia cespitosa	2
Common Valerian	Valeriana officinalis	2

Table 139: Site 26, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)		412144, 510366

Species List		
Common Name	Scientific Name	Domin Scale
Shrubs		
Black-Poplar [Spp]	Populus nigra [spp]	4
Grey Willow	Salix cinerea	5
Field		
Common Reed	Phragmites australis	8
Meadowsweet	Filipendula ulmaria	7
Cleavers	Galium aparine	3
Red Campion	Silene dioica	1
Compact Rush	Juncus conglomeratus	2
Tufted Hair-Grass	Deschampsia cespitosa	2
Creeping Thistle	Cirsium arvense	1
Hedge Woundwort	Stachys sylvatica	1
Ground-Elder	Aegopodium podagraria	3
Himalayan Balsam	Impatiens glandulifera	1
Hard Rush	Juncus inflexus	2

Table 140: Site 26, Habitat 3: Survey Details

Site Name	26
Date	14/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Recently felled woodland that has been rotated with artificial drainage channels forming fen habitat - 3 separate communities present: Habitat 3: separate area dominated by meadowsweet with scattered self-seeded willow and poplar present throughout. Habitat in transitional stage forming from 'wet' neutral grassland that will have developed post-felling.

Management Notes	Felled woodland - possible to be replanted - drainage channel throughout habitat.
Condition Notes	Even tall sward, high abundance of undesirable species and invasive species present - scattered scrub >5%. Water levels not permanently at surface. Fails most criteria
Slope	0
Aspect	0
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	None
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	4
Understorey Cover (%)	20
Field Layer height (mean, m)	1
Field Cover (%)	95
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	None
Thatch	None
Bare Ground	<5
Other Notes	5 quadrats taken over area to define different habitat types. Appears to be on wet/water logged soils, however difficult to determine hydrological conditions due to dry weather during survey. A precautionary approach has therefore been applied.
BNG Habitat	f2a - Lowland fens - Priority Habitat

BNG Condition	Poor
NVC Community	M27 - Filipendula ulmaria-Angelica sylvestris mire; sub-community not distinctive

Table 141: Site 26, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	2x2	2x2
Grid Reference (X, Y)	412057, 510337	
Species List		
Common Name	Scientific Name	Domin Scale
Shrubs		
Black-Poplar [Spp]	Populus nigra [spp]	3
Grey Willow	Salix cinerea	4
Goat Willow	Salix caprea	1
Field		
Meadowsweet	Filipendula ulmaria	9
Tufted Hair-Grass	Deschampsia cespitosa	4
Soft-Rush	Juncus effusus	2
Compact Rush	Juncus conglomeratus	2
Hard Rush	Juncus inflexus	2
Great Willowherb	Epilobium hirsutum	4
Curled Dock	Rumex crispus	2

Table 142: Site 26, Habitat 3: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
5	2x2	2x2
Grid Reference (X, Y)	412040, 510432	
Species List		
Common Name	Scientific Name	Domin Scale

Shrubs		
Grey Willow	Salix cinerea	4
Goat Willow	Salix caprea	4
Field		
Meadowsweet	Filipendula ulmaria	6
Creeping Thistle	Cirsium arvense	3
Common Valerian	Valeriana officinalis	1
Spear Thistle	Cirsium vulgare	4
Curled Dock	Rumex crispus	4
Wild Angelica	Angelica sylvestris	1
Hard Rush	Juncus inflexus	3
Soft-Rush	Juncus effusus	3
Compact Rush	Juncus conglomeratus	3
Cleavers	Galium aparine	1
Silverweed	Potentilla anserina	1
American Willowherb	Epilobium ciliatum	1
Fen Bedstraw	Galium uliginosum	1
Red Campion	Silene dioica	1
Rough Meadow-Grass	Poa trivialis	1
Yorkshire-Fog	Holcus lanatus	3

Table 143: Site 27, Habitat 1: Survey Details

Site Name	27
Date	30.06.22
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (temp (°C), wind, cloud, rain)	Valid

Site/Vegetation Description	Plantation of mixed Scots pine, Douglas fir on damp soils - mostly bare understorey with some grass dominated areas where canopy is open.
Management Notes	Plantation woodland - evidence of pruning and felling present
Condition Notes	Plantation woodland - Poor
Slope	0
Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	20
Canopy Cover (%)	60
Understorey/Shrub Layer height (m)	6
Field Layer height (mean, m)	0.25
Field Cover (%)	40
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	5
Leaf Litter	0.01
Thatch	0
Bare Ground	60
Other Notes	Area only large enough for 3 quadrats
BNG Habitat	w2c - Other coniferous woodland
BNG Condition	Poor

NVC Community

No recognisable NVC community. Ground flora with some marshy elements but not distinctive to define historic land use.

Table 144: Site 27, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)		358278, 528782
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Scots Pine	<i>Pinus sylvestris</i>	8
Douglas Fir	<i>Pseudotsuga menziesii</i>	1
European Larch	<i>Larix decidua</i>	1
Ash	<i>Fraxinus excelsior</i>	1
Shrubs		
Gorse	<i>Ulex europaeus</i>	1
Field		
Cock's-Foot	<i>Dactylis glomerata</i>	3
False Oat-Grass	<i>Arrhenatherum elatius</i>	4
Bramble	<i>Rubus fruticosus</i> agg.	4
Broad Buckler-Fern	<i>Dryopteris dilatata</i>	5
Marsh Thistle	<i>Cirsium palustre</i>	1
Yorkshire-Fog	<i>Holcus lanatus</i>	3
Cleavers	<i>Galium aparine</i>	3
Soft-Rush	<i>Juncus effusus</i>	4
Wood-Sorrel	<i>Oxalis acetosella</i>	1
Swan's-Necked Thyme-Moss	<i>Mnium hornum</i>	4

Table 145: Site 27, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50x50	4x4
Grid Reference (X, Y)		
358236, 528811		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Douglas Fir	<i>Pseudotsuga menziesii</i>	7
Ash	<i>Fraxinus excelsior</i>	1
European Larch	<i>Larix decidua</i>	1
Norway Spruce	<i>Picea abies</i>	1
Alder	<i>Alnus glutinosa</i>	1
Shrubs		
Hazel	<i>Corylus avellana</i>	1
Field 1		
Bare Ground & Leaf Litter	#N/A	10
Common Nettle	<i>Urtica dioica</i>	3
Field 2		
Yorkshire-Fog	<i>Holcus lanatus</i>	8
Creeping Buttercup	<i>Ranunculus repens</i>	5
Marsh Thistle	<i>Cirsium palustre</i>	1
Reed Canary-Grass	<i>Phalaris arundinacea</i>	3
Lesser Stitchwort	<i>Stellaria graminea</i>	2

Table 146: Site 27, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	50x50	4x4

Grid Reference (X, Y)		358247, 528867
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Scots Pine	<i>Pinus sylvestris</i>	7
Red Oak	<i>Quercus rubra</i>	1
Pedunculate Oak	<i>Quercus robur</i>	3
Ash	<i>Fraxinus excelsior</i>	3
Shrubs		
Hawthorn	<i>Crataegus monogyna</i>	1
Field		
Broad Buckler-Fern	<i>Dryopteris dilatata</i>	7
Climbing Corydalis	<i>Ceratocarpus claviculata</i>	8
Foxglove	<i>Digitalis purpurea</i>	1
Bramble	<i>Rubus fruticosus</i> agg.	3
Bare Ground And Leaf Litter	#N/A	4

Table 147: Site 27, Habitat 2: Survey Details

Site Name	27
Date	30.06.22
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Alder wet woodland - small patch within plantation along hill - semi-mature alder on damp soils - open area with planted conifers dominated by marshy vegetation - Drainage channel passing through centre of site.
Management Notes	No management evident

Condition Notes	Trees all similar age but with young saplings within understorey - understorey dominated by ferns and marshy vegetation
Slope	0
Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	65
Understory/Shrub Layer height (m)	2
Field Layer height (mean, m)	5
Field Cover (%)	80
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	5
Thatch	0
Bare Ground	5
Other Notes	Small area - 2 field quadrats undertaken
BNG Habitat	w1d5 - Alder woodland on floodplains (H91E0) - Priority Habitat/Annex 1
BNG Condition	Moderate
NVC Community	W6a - Alnus glutinosa-Urtica dioica woodland, typical sub-community

Table 148: Site 27, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
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1	Whole Area	Whole Area
Grid Reference (X, Y)	358293, 528826	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Alder	<i>Alnus glutinosa</i>	8
Scots Pine	<i>Pinus sylvestris</i>	5
Douglas Fir	<i>Pseudotsuga menziesii</i>	3
Ash	<i>Fraxinus excelsior</i>	2
Norway Spruce	<i>Picea abies</i>	1
Field 1		
Broad Buckler-Fern	<i>Dryopteris dilatata</i>	7
Marsh Thistle	<i>Cirsium palustre</i>	3
Soft-Rush	<i>Juncus effusus</i>	3
Creeping Buttercup	<i>Ranunculus repens</i>	3
Cleavers	<i>Galium aparine</i>	3
Yorkshire-Fog	<i>Holcus lanatus</i>	4
Barren Brome	<i>Anisantha sterilis</i>	3
Rough Meadow-Grass	<i>Poa trivialis</i>	4
Field 2		
Reed Canary-Grass	<i>Phalaris arundinacea</i>	7
False Oat-Grass	<i>Arrhenatherum elatius</i>	4
Broad Buckler-Fern	<i>Dryopteris dilatata</i>	4
Marsh Thistle	<i>Cirsium palustre</i>	3
Common Nettle	<i>Urtica dioica</i>	3
Creeping Buttercup	<i>Ranunculus repens</i>	1
Marsh-Bedstraw	<i>Galium palustre</i>	2

Table 149: Site 28, Habitat 1: Survey Details

Site Name	28
Date	15/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Overgrown road verge with scattered trees - dominated by bramble and cleavers with scattered rank grasses and ruderal herbs - significant bare ground where trees become denser.
Management Notes	Close mown at edge.
Condition Notes	Dominance of undesirable species and scrub - poor diversity, with extensive areas of bare ground
Slope	0
Aspect	N/A
Soil pH	Unknown
Soil Depth (cm)	Unknown
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1.3
Field Cover (%)	70
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	0

Thatch	1.3
Bare Ground	30
Other Notes	Small Area - Single quadrat encompassing whole area compiled
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Poor
NVC Community	MG1b - Arrhenatherum elatius grassland, Urtica dioica sub-community

Table 150: Site 28, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	373373, 516761	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Ash	Fraxinus excelsior	1
Goat Willow	Salix caprea	2
Blackthorn	Prunus spinosa	2
Sitka Spruce	Picea sitchensis	2
Grey Willow	Salix cinerea	2
Aspen	Populus tremula	1
Hawthorn	Crataegus monogyna	1
Field		
False Oat-Grass	Arrhenatherum elatius	4
Common Nettle	Urtica dioica	5
Cock's-Foot	Dactylis glomerata	3
Meadowsweet	Filipendula ulmaria	1
Hedge Woundwort	Stachys sylvatica	3
Great Willowherb	Epilobium hirsutum	3
Hogweed	Heracleum sphondylium	2

Creeping Thistle	Cirsium arvense	1
Bramble	Rubus fruticosus agg.	8
Yorkshire-Fog	Holcus lanatus	5
Reed Canary-Grass	Phalaris arundinacea	1
Cleavers	Galium aparine	8
Creeping Buttercup	Ranunculus repens	3
Rough Meadow-Grass	Poa trivialis	3
Blackthorn [Seedling]	Prunus spinosa	1
Crosswort	Cruciata laevipes	1
Bush Vetch	Vicia sepium	3
Lesser Burdock	Arctium minus	1
Broad-Leaved Dock	Rumex obtusifolius	1
Cow Parsley	Anthriscus sylvestris	1
Willow [Seedling]	Salix [spp]	1
White Clover	Trifolium repens	2
Perennial Rye-Grass	Lolium perenne	4
Annual Meadow-Grass	Poa annua	4

Table 151: Site 29, Habitat 1: Survey Details

Site Name	29
Date	07/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Unmanaged grass verge along a disused railway line - dominated by false oat-grass - some rural herbs.

Management Notes	Unmanaged - some areas used for storage of rail materials.
Condition Notes	Uniform tall sward with a significant abundance of suboptimal species - some scattered scrub, but limited bare ground
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1
Field Cover (%)	85
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	0
Thatch	Minor
Bare Ground	15
Other Notes	Habitat uniform throughout, only three quadrats required.
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Moderate
NVC Community	MG1 - Arrhenatherum elatius grassland; sub-community not distinctive

Table 152: Site 29, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)		
375500, 515471		
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	Arrhenatherum elatius	8
Common Nettle	Urtica dioica	3
Hogweed	Heracleum sphondylium	3
Cock's-Foot	Dactylis glomerata	4
Creeping Thistle	Cirsium arvense	2
Cow Parsley	Anthriscus sylvestris	1
Cleavers	Galium aparine	3
Field Forget-Me-Not	Myosotis arvensis	1
Tufted Vetch	Vicia cracca	2
Creeping Buttercup	Ranunculus repens	2
Perforate St John's-Wort	Hypericum perforatum	1
Bush Vetch	Vicia sepium	2
Hawkweed [Spp]	Pilosella	1

Table 153: Site 29, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)		
375547, 515422		
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	Arrhenatherum elatius	8
Common Bent	Agrostis capillaris	5
Yorkshire-Fog	Holcus lanatus	4

Hedge Bedstraw	Galium mollugo	3
Perforate St John's-Wort	Hypericum perforatum	2
Crosswort	Cruciata laevipes	1
Hogweed	Heracleum sphondylium	2
Creeping Bent	Agrostis stolonifera	3
Tufted Hair-Grass	Deschampsia cespitosa	1
Germander Speedwell	Veronica chamaedrys	2
White Clover	Trifolium repens	2
Field Horsetail	Equisetum arvense	1
Bush Vetch	Vicia sepium	2
Creeping Thistle	Cirsium arvense	1
Meadow Vetchling	Lathyrus pratensis	1

Table 154: Site 29, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	375578, 515388	
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	Arrhenatherum elatius	7
Cock's-Foot	Dactylis glomerata	4
Tufted Vetch	Vicia cracca	5
Hedge Bedstraw	Galium mollugo	4
Meadow Vetchling	Lathyrus pratensis	4
White Campion	Silene latifolia	1
Hogweed	Heracleum sphondylium	1
Creeping Thistle	Cirsium arvense	2
Cleavers	Galium aparine	1
Field Forget-Me-Not	Myosotis arvensis	1

Common Bent	Agrostis capillaris	3
White Clover	Trifolium repens	2
Bearded Couch	Elymus caninus	1
Smooth Sow-Thistle	Sonchus oleraceus	1

Table 155: Site 29, Habitat 2: Survey Details

Site Name	29
Date	07/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Rabbit grazed grass verge in railway yard - mixed height sward, abundance of wildflowers and scattered scrub.
Management Notes	Rabbit grazed.
Condition Notes	Some areas of damaging equipment storage - bare ground more than 5%. Mixed sward height and low abundance of undesirable species
Slope	20
Aspect	South-west
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A

Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.3
Field Cover (%)	90
Ground Layer height (above ground mean, m)	0.02
Ground Cover (%)	25
Leaf Litter	0
Thatch	Minor
Bare Ground	10
Other Notes	Small area of similar composition, but some minor changes - three representative quadrats taken.
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Moderate
NVC Community	MG1e - Arrhenatherum elatius grassland, Centaurea nigra sub-community

Table 156: Site 29, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	375552, 515479	
Species List		
Common Name	Scientific Name	Domin Scale
Field		
Yorkshire-Fog	Holcus lanatus	7
Creeping Thistle	Cirsium arvense	4
White Clover	Trifolium repens	6
Selfheal	Prunella vulgaris	4
Tormentil	Potentilla erecta	5
Black Medick	Medicago lupulina	4

Creeping Bent	<i>Agrostis stolonifera</i>	7
Common Ragwort	<i>Senecio jacobaea</i>	2
Springy Turf-Moss	<i>Rhytidiadelphus squarrosus</i>	4
Smooth Hawk's-Beard	<i>Crepis capillaris</i>	2
Hogweed	<i>Heracleum sphondylium</i>	1
Oxeye Daisy	<i>Leucanthemum vulgare</i>	1
Soapwort	<i>Saponaria officinalis</i>	1

Table 157: Site 29, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	375567, 515446	
Species List		
Common Name	Scientific Name	Domin Scale
Field		
Yorkshire-Fog	<i>Holcus lanatus</i>	7
Tormentil	<i>Potentilla erecta</i>	6
Crosswort	<i>Cruciata laevipes</i>	3
Hedge Bedstraw	<i>Galium mollugo</i>	3
Hogweed	<i>Heracleum sphondylium</i>	2
Perforate St John's-Wort	<i>Hypericum perforatum</i>	2
Oxeye Daisy	<i>Leucanthemum vulgare</i>	2
Red Fescue	<i>Festuca rubra</i>	5
Hawthorn Shrub	<i>Crataegus monogyna</i>	2
Common Bird's-Foot-Trefoil	<i>Lotus corniculatus</i>	2
Smooth Hawk's-Beard	<i>Crepis capillaris</i>	2
Creeping Bent	<i>Agrostis stolonifera</i>	3
Common Sedge	<i>Carex nigra</i>	1
Cowslip	<i>Primula veris</i>	1

Table 158: Site 29, Habitat 2: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)		375584, 515410
Species List		
Common Name	Scientific Name	Domin Scale
Field		
False Oat-Grass	Arrhenatherum elatius	6
Meadow Vetchling	Lathyrus pratensis	3
Common Knapweed	Centaurea nigra	2
Hogweed	Heracleum sphondylium	1
Field Horsetail	Equisetum arvense	6
Tufted Vetch	Vicia cracca	2
White Campion	Silene latifolia	2
Perforate St John's-Wort	Hypericum perforatum	3
Red Fescue	Festuca rubra	6
Yorkshire-Fog	Holcus lanatus	4
Cock's-Foot	Dactylis glomerata	3
White Clover	Trifolium repens	3
Crosswort	Cruciata laevipes	2
Springy Turf-Moss	Rhytidiadelphus squarrosus	5

Table 159: Site 30, Habitat 1: Survey Details

Site Name	30
Date	30/06/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht

Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Scot's pine plantation at entrance to Center Parcs - mature south and west - with newly planted area to the north. Ground flora dominated by bracken and bramble with more abundant herbs within the younger sections.
Management Notes	Plantation with some new planting evident
Condition Notes	Plantation woodland with largely typical understory and absence of deadwood - Poor
Slope	0
Aspect	Open
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	20
Canopy Cover (%)	50
Understory/Shrub Layer height (m)	4
Field Layer height (mean, m)	1
Field Cover (%)	70
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	30
Leaf Litter	5
Thatch	5
Bare Ground	20
Other Notes	Species-poor, plantation woodland - Single quadrat for each area undertaken only

BNG Habitat	Other Scot's Pine woodland - w2b
BNG Condition	Poor
NVC Community	No recognisable NVC community - closest fit W18 but man-made version outside of Scotland so does not fit classification.

Table 160: Site 30, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)		
357147, 528022		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Scots Pine	<i>Pinus sylvestris</i>	7
Sitka Spruce	<i>Picea sitchensis</i>	1
Norway Spruce	<i>Picea abies</i>	2
Silver Birch	<i>Betula pendula</i>	2
Shrubs		
Silver Birch	<i>Betula pendula</i>	4
Broom	<i>Cytisus scoparius</i> (syn. <i>Sarothamnus scoparius</i>)	4
Holly	<i>Ilex aquifolium</i>	2
Field		
Bracken	<i>Pteridium aquilinum</i>	7
Pedunculate Oak [seedling]	<i>Quercus robur</i>	1
Bilberry	<i>Vaccinium myrtillus</i>	4
Tufted Hair-grass	<i>Deschampsia cespitosa</i>	3
Neat Feather-moss	<i>Pseudoscleropodium purum</i>	6
Silver Birch [seedling]	<i>Betula pendula</i>	3
Bare ground & Leaf Litter	#N/A	5

Table 161: Site 30, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50x50	4x4
Grid Reference (X, Y)		357317, 528113
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Scots Pine	<i>Pinus sylvestris</i>	7
Sitka Spruce	<i>Picea sitchensis</i>	1
Shrubs		
Silver Birch	<i>Betula pendula</i>	3
Field		
Bracken	<i>Pteridium aquilinum</i>	5
Broad Buckler-fern	<i>Dryopteris dilatata</i>	5
Bilberry	<i>Vaccinium myrtillus</i>	4
Broom	<i>Cytisus scoparius</i> (syn. <i>Sarothamnus scoparius</i>)	3
Bramble	<i>Rubus fruticosus</i> agg.	3
Silver Birch [seedling]	<i>Betula pendula</i>	2
Sitka Spruce [seedling]	<i>Picea sitchensis</i>	1
Common Haircap moss	<i>Polytrichum commune</i>	1
Neat Feather-moss	<i>Pseudoscleropodium purum</i>	2
Bare ground & Leaf Litter	#N/A	5

Table 162: Site 30, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	50x50	4x4

Grid Reference (X, Y)	357238, 528198	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Scots Pine	<i>Pinus sylvestris</i>	7
Field		
Yorkshire-fog	<i>Holcus lanatus</i>	4
Creeping Buttercup	<i>Ranunculus repens</i>	4
Bramble	<i>Rubus fruticosus</i> agg.	4
Wood-sorrel	<i>Oxalis acetosella</i>	5
Springy Turf-moss	<i>Rhytidiadelphus squarrosus</i>	8
Wood speedwell	<i>Veronica montana</i>	3
Sheep's Sorrel	<i>Rumex acetosella</i>	2
False Oat-grass	<i>Arrhenatherum elatius</i>	4
Rowan seedling	<i>Sorbus aucuparia</i>	2
Broad Buckler-fern	<i>Dryopteris dilatata</i>	2
Rough-stalked Feather-moss	<i>Brachythecium rutabulum</i>	4

Table 163: Site 30, Habitat 2: Survey Details

Site Name	30
Date	30/06/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Grass verge along entrance of Center Parcs extending into adjacent site. Moderate diversity, may have been seeded as part of landscaping for the holiday park.

Management Notes	Likely to be only occasionally mown.
Condition Notes	Uniform tall sward with moderate diversity of grasses and herbs. Absence of bare ground, scrub and bracken but with some undesirable species present.
Slope	0
Aspect	0
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.5
Field Cover (%)	100
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	<5
Leaf Litter	0
Thatch	0
Bare Ground	0
Other Notes	Habitat similar composition throughout - 3 quadrats undertaken to confirm
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Moderate
NVC Community	MG1 - Arrhenatherum elatius grassland; sub-community not distinctive

Table 164: Site 30, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)		357200, 528130
Species List		
Common Name	Scientific Name	Domin Scale
Common Knapweed	<i>Centaurea nigra</i>	3
Yellow-rattle	<i>Rhinanthus minor</i>	2
tufted vetch	<i>Vicia cracca</i>	3
Creeping Bent	<i>Agrostis stolonifera</i>	5
False Oat-grass	<i>Arrhenatherum elatius</i>	5
Rough Meadow-grass	<i>Poa trivialis</i>	4
Cow Parsley	<i>Anthriscus sylvestris</i>	3
Hairy Tare	<i>Vicia hirsuta</i>	1
Red Clover	<i>Trifolium pratense</i>	2
White Clover	<i>Trifolium repens</i>	1
Oxeye Daisy	<i>Leucanthemum vulgare</i>	1
Springy Turf-moss	<i>Rhytidiadelphus squarrosus</i>	7

Table 165: Site 30, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)		357172, 528198
Species List		
Common Name	Scientific Name	Domin Scale

False Oat-grass	Arrhenatherum elatius	6
Cow Parsley	Anthriscus sylvestris	3
Cock's-foot	Dactylis glomerata	3
Yorkshire-fog	Holcus lanatus	3
Marsh Valerian	Valeriana dioica	1
Common Knapweed	Centaurea nigra	1
Common Spotted-Orchid	Dactylorhiza fuchsii	1
Springy Turf-moss	Rhytidiadelphus squarrosus	6

Table 166: Site 30, Habitat 2: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)		357151, 528234
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-grass	Arrhenatherum elatius	7
Cow Parsley	Anthriscus sylvestris	6
Meadow Vetchling	Lathyrus pratensis	4
Rosebay Willowherb	Chamerion angustifolium	3
Yorkshire-fog	Holcus lanatus	3
Tufted Vetch	Vicia cracca	2
Common Mouse-ear	Cerastium fontanum	1
Hedge Bedstraw	Galium mollugo	3
Hogweed	Heracleum sphondylium	1

Table 167: Site 31, Habitat 1: Survey Details

Site Name	31
Date	22/06/2022
Surveyors	Paul Wolstenholme & Fraser Allen

Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Mature woodland on fairly steep rocky bank with rocky outcrops - dominated by mature wych elm and sycamore with a sparse shrub layer - understorey dominated by dog's mercury with ruderal herbs.
Management Notes	Some access paths established through woodland but otherwise unmanaged.
Condition Notes	Complex canopy with some dead wood present - high abundance of cleavers present - young trees and saplings also present.
Slope	30
Aspect	S
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	80
Understory/Shrub Layer height (m)	4
Field Layer height (mean, m)	1
Field Cover (%)	70
Ground Layer height (above ground mean, m)	5
Ground Cover (%)	50
Leaf Litter	Limited
Thatch	Limited
Bare Ground	30
Other Notes	Area separated from rest of site by railway line - only large enough for single woodland quadrat.
BNG Habitat	w1b6 - Other upland mixed ashwoods - Priority Habitat
BNG Condition	Moderate

NVC Community

W9 Fraxinus excelsior – Sorbus aucuparia – Mercurialis perennis woodland

Table 168: Site 31, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)		350745, 528316
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Wych Elm	Ulmus glabra	7
Ash	Fraxinus excelsior	4
Sycamore	Acer pseudoplatanus	6
Scots Pine	Pinus sylvestris	2
Shrub		
Elder	Sambucus nigra	4
Hawthorn	Crataegus monogyna	5
Field		
Dog's Mercury	Mercurialis perennis	9
Red Campion	Silene dioica	2
Wood Avens	Geum urbanum	4
Herb-Robert	Geranium robertianum	1
Male-Fern	Dryopteris filix-mas	1
Cleavers	Galium aparine	4
Common Nettle	Urtica dioica	2
Barren Brome	Anisantha sterilis	3

Hogweed	Heracleum sphondylium	1
Smooth Meadow-Grass	Poa pratensis	3
Common Ivy	Hedera helix	2
Ground		
Rough-Stalked Feathermoss	Brachythecium rutabulum	9
Bare Ground & Leaf Litter	#N/A	5

Table 169: Site 31, Habitat 2: Survey Details

Site Name	31
Date	22/06/2022
Surveyors	Paul Wolstenholme & Fraser Allen
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Mixed woodland consisting of mature native broadleaved trees, up planted with non-native conifers - extensive diversity of planted trees supported by regular natives - understorey dominated by dog's mercury and ruderal herbs - becomes more of an ornamental woodland towards estate house but large existing native trees still present.
Management Notes	40 years of planting with regular management of access paths - less regular management towards the north.
Condition Notes	Single canopy largely only present with little dead wood, young native trees and signs of regeneration - somewhat protected from grazing but not completely.
Slope	0-5
Aspect	Largely flat
Soil pH	Unknown

Soil Depth (cm)	N/A
Peat present?	no
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	85%
Understory/Shrub Layer height (m)	4
Field Layer height (mean, m)	1
Field Cover (%)	40
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	<5
Leaf Litter	High
Thatch	None
Bare Ground	50
Other Notes	Woodland in estate grounds
BNG Habitat	w1h5 - Other woodland; mixed; mainly broadleaved
BNG Condition	Moderate
NVC Community	No recognisable NVC community present - Presence of dog's mercury in understorey indicates W8/W9 type woodland but canopy structure affected by estate planting scheme.

Table 170: Site 31, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	40x60	4x4
Grid Reference (X, Y)	350647, 528678	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sycamore	Acer pseudoplatanus	8

Ash	Fraxinus excelsior	2
Beech	Fagus sylvatica	4
Lawson's Cypress	Chamaecyparis lawsoniana	2
Silver Birch	Betula pendula	1
Pedunculate Oak	Quercus robur	1
Douglas Fir	Pseudotsuga menziesii	1
Common Lime	Tilia x europaea	1
Shrub		
Snowberry	Symphoricarpos albus	4
Elder	Sambucus nigra	1
Field		
Common Nettle	Urtica dioica	8
Dog's Mercury	Mercurialis perennis	5
Rough Meadow-Grass	Poa trivialis	2
Smooth Meadow-Grass	Poa pratensis	3
Ground		
Rough-Stalked Feathermoss	Brachythecium rutabulum	8
Bare Ground & Leaf Litter	#N/A	5

Table 171: Site 31, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	40x60	4x4
Grid Reference (X, Y)	350671, 528607	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Common Lime	Tilia x europaea	1
Douglas Fir	Pseudotsuga menziesii	4
Beech	Fagus sylvatica	8

Lawson's Cypress	<i>Chamaecyparis lawsoniana</i>	1
Horse-Chestnut	<i>Aesculus hippocastanum</i>	1
Sycamore	<i>Acer pseudoplatanus</i>	5
Shrub		
Snowberry	<i>Symphoricarpos albus</i>	5
Holly	<i>Ilex aquifolium</i>	1
Field		
Dog's Mercury	<i>Mercurialis perennis</i>	5
Lords-And-Ladies	<i>Arum maculatum</i>	2
Wood Speedwell	<i>Veronica montana</i>	5
Male-Fern	<i>Dryopteris filix-mas</i>	4
Ground		
Rough-Stalked Feathermoss	<i>Brachythecium rutabulum</i>	5
Bare Ground & Leaf Litter	#N/A	9

Table 172: Site 31, Habitat 2: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	40x60	4x4
Grid Reference (X, Y)	350699, 528517	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sycamore	<i>Acer pseudoplatanus</i>	5
Douglas Fir	<i>Pseudotsuga menziesii</i>	6
Beech	<i>Fagus sylvatica</i>	5
Corsican Pine	<i>Pinus nigra</i> subsp. <i>laricio</i>	4
Chestnut-Leaved Oak	<i>Quercus castaneifolia</i>	1
Hondo Spruce	<i>Picea jezoensis</i>	1
Copper Beech	<i>Fagus sylvatica</i> x <i>Purpurea</i>	1

Norway Spruce	<i>Picea abies</i>	4
Shrub		
Snowberry	<i>Symphoricarpos albus</i>	7
Elder	<i>Sambucus nigra</i>	1
Field		
Common Nettle	<i>Urtica dioica</i>	4
Dog's Mercury	<i>Mercurialis perennis</i>	4
Cleavers	<i>Galium aparine</i>	7
Himalayan Balsam	<i>Impatiens glandulifera</i>	5
Bramble	<i>Rubus fruticosus</i> agg.	5
Meadow Buttercup	<i>Ranunculus acris</i>	2
Red Campion	<i>Silene dioica</i>	1
Herb-Robert	<i>Geranium robertianum</i>	1
Bluebell	<i>Hyacinthoides non-scripta</i>	3
Rough Meadow-Grass	<i>Poa trivialis</i>	2
Ground		
Rough-Stalked Feathermoss	<i>Brachythecium rutabulum</i>	4
Bare ground & Leaf Litter	#N/A	10

Table 173: Site 31, Habitat 2: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	50x50	4x4
Grid Reference (X, Y)		350768, 528400
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Beech	<i>Fagus sylvatica</i>	5
Wych Elm	<i>Ulmus glabra</i>	1
Sycamore	<i>Acer pseudoplatanus</i>	5

Common Lime	<i>Tilia x europaea</i>	2
Ash	<i>Fraxinus excelsior</i>	1
Douglas Fir	<i>Pseudotsuga menziesii</i>	1
Grecian Fir	<i>Abies cephalonica</i>	2
Vetich's Fir	<i>Abies veitchii</i>	2
Caucasian Fir	<i>Abies nordmanniana</i>	4
Norway Maple	<i>Acer platanoides</i>	1
Western Hemlock	<i>Tsuga heterophylla</i>	1
European Silver Fir	<i>Abies alba</i>	1
Chestnut-Leaved Oak (Sap)	<i>Quercus castaneifolia</i>	1
Shrub		
Snowberry	<i>Symphoricarpos albus</i>	4
Hawthorn	<i>Crataegus monogyna</i>	2
Field		
Common Nettle	<i>Urtica dioica</i>	7
Dog's Mercury	<i>Mercurialis perennis</i>	6
Wood Avens	<i>Geum urbanum</i>	4
Cleavers	<i>Galium aparine</i>	4
Barren Brome	<i>Anisantha sterilis</i>	3
Lords-And-Ladies	<i>Arum maculatum</i>	2
Ground		
Bare Ground & Leaf Litter	#N/A	10

Table 174: Site 31, Habitat 2: Quadrat 5

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	50x50	4x4
Grid Reference (X, Y)	350873, 528461	
Species List		

Common Name	Scientific Name	Domin Scale
Canopy		
Pedunculate Oak	Quercus robur	2
Lawson's Cypress	Chamaecyparis lawsoniana	3
European Silver Fir	Abies alba	1
Cherry [Spp.]	Prunus [spp.]	3
Smooth Japanese Maple	Acer palmatum	1
Eastern White Pine	Pinus strobus	1
Yew	Taxus baccata	3
Giant Sequoia	Sequoiadendron giganteum	3
Western Red Cedar	Thuja plicata	2
California Incence Cedar	Calocedrus decurrens	1
Sycamore	Acer pseudoplatanus	4
Beech	Fagus sylvatica	5
Copper Beech	Fagus sylvatica f. purpurea	1
Wych Elm	Ulmus glabra	3
Holm Oak	Quercus ilex	1
Hazel	Corylus avellana	1
Shrenk's Spruce	Picea schrenkiana	1
Wilson's Spruce	Picea wilsonii	1
Silver Birch	Betula pendula	1
Shrub		
Rhododendron Spp.	Rhododendron spp.	3
Azalia Spp.	Azalia spp.	1
Cherry Laurel	Prunus laurocerasus	5
Dogwood	Cornus sanguinea	4
Redcurrent	Ribes rubrum	1
Field		
Cock's-Foot	Dactylis glomerata	7

Yorkshire-Fog	Holcus lanatus	6
Meadow Foxtail	Alopecurus pratensis	4
Creeping Buttercup	Ranunculus repens	6
Ground-Elder	Aegopodium podagraria	5
Hogweed	Heracleum sphondylium	4
Herb-Robert	Geranium robertianum	4
Wood Avens	Geum urbanum	4
Cleavers	Galium aparine	4
Field Forget-Me-Not	Myosotis arvensis	3
Rough Meadow-Grass	Poa trivialis	4
Common Nettle	Urtica dioica	3
Bluebell	Hyacinthoides non-scripta	2
False Oat-Grass	Arrhenatherum elatius	3
Curled Dock	Rumex crispus	1
Enchanter's-Nightshade	Circaea lutetiana	1
Ground		
Bare ground & Leaf Litter	#N/A	10

Table 175: Site 32, Habitat 1: Survey Details

Site Name	Site 32 Habitat 1
Date	30/06/2022
Surveyors	Paul Wolstenholme, Dermot McKee
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Plantation woodland. Large, early-mature hybrid black poplar and white willow.

Management Notes	No current management apparent.
Condition Notes	Only one age structure of trees present with little evidence of regeneration. Occasional standing/fallen dead wood. Understorey very sparse. Field layer affected, at least around margins, by surrounding arable.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	22
Canopy Cover (%)	75
Understorey/Shrub Layer height (m)	Negligible
Field Layer height (mean, m)	0.4
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5
Other Notes	
BNG Habitat	Other woodland; broadleaved w1g
BNG Condition	Poor
NVC Community	No NVC community because plantation.

Table 176: Site 32, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)		
358246 , 528575		
Species List		
Common Name	Scientific Name	Domin Scale
Black-Poplar [Spp]	Populus nigra [spp]	5
White Willow	Salix alba	4
False Oat-Grass	Arrhenatherum elatius	8
Male-Fern	Dryopteris filix-mas	5
Cock's-Foot	Dactylis glomerata	4
Yorkshire-Fog	Holcus lanatus	5
Cleavers	Galium aparine	4
Common Nettle	Urtica dioica	4
Common Hemp-Nettle	Galeopsis tetrahit	3
Soft-Rush	Juncus effusus	5
Raspberry	Rubus idaeus	4
Tufted Vetch	Vicia cracca	3
Hogweed	Heracleum sphondylium	4
Tufted Hair-Grass	Deschampsia cespitosa	4
Marsh Thistle	Cirsium palustre	4
Meadowsweet	Filipendula ulmaria	4
Clustered Dock	Rumex conglomeratus	4
Common Bird's-Foot-Trefoil	Lotus corniculatus	4
Tormentil	Potentilla erecta	4

Table 177: Site 32, Habitat 2: Survey Details

Site Name	Site 32 Habitat 2
Date	30/06/2022

Surveyors	Paul Wolstenholme, Dermot McKee
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Marginal vegetation around shallow pond (which was largely dry at time of survey)
Management Notes	No current management apparent.
Condition Notes	Vegetation patchy and affected by waterfowl and eutrophication. Submerged aquatic plants not evident (although Callitriche sp. present).
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Standing Water
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.3
Field Cover (%)	25
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	30 (because of dried pond)
Other Notes	

BNG Habitat	Other eutrophic standing waters r1a6
BNG Condition	Poor
NVC Community	No clear NVC community because vegetation sparse/patchy and submerged macrophytes absent

Table 178: Site 32, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	358238 , 528693	
Species List		
Common Name	Scientific Name	Domin Scale
Water-starwort sp.	Callitriche sp.	4
Lesser spearwort	Ranunculus flammula	4
Skullcap	Scutellaria galericulata	4
Reed canary-grass	Phalaris arundinacea	4
Creeping buttercup	Ranunculus repens	5
Meadowsweet	Filipendula ulmaria	5
Marsh valerian	Valeriana dioica	4
Brooklime	Veronica beccabunga	4
Marsh-marigold	Caltha palustris	4
Water mint	Mentha aquatica	4

Table 170: Site 32, Habitat 3: Survey Details

Site Name	Site 32 Habitat 3
Date	30/06/2022
Surveyors	Paul Wolstenholme, Dermot McKee
Weather Conditions (temp (°C), wind, cloud, rain)	Valid

Site/Vegetation Description	Mixed plantation woodland with Scots pine/larch/beech.
Management Notes	No current management apparent.
Condition Notes	Age structure of trees not diverse and little evidence of regeneration. Occasional standing/fallen dead wood.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	75
Understory/Shrub Layer height (m)	Negligible
Field Layer height (mean, m)	0.4
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5
Other Notes	
BNG Habitat	Other woodland; mixed w1h.
BNG Condition	Poor
NVC Community	No clear NVC community because plantation.

Table 171: Site 32, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	358179 , 528667	
Species List		
Common Name	Scientific Name	Domin Scale
Scots pine	<i>Pinus sylvestris</i>	4
European larch	<i>Larix decidua</i>	4
Beech	<i>Fagus sylvatica</i>	3
False oat-grass	<i>Arrhenatherum elatius</i>	8
Male-fern	<i>Dryopteris filix-mas</i>	5
Gorse	<i>Ulex europaeus</i>	5
Sweet vernal-grass	<i>Anthoxanthum odoratum</i>	4
Foxglove	<i>Digitalis purpurea</i>	4
Cock's-foot	<i>Dactylis glomerata</i>	4
Heath bedstraw	<i>Galium saxatile</i>	4
Yorkshire-fog	<i>Holcus lanatus</i>	5
Hogweed	<i>Heracleum sphondylium</i>	4
Tufted hair-grass	<i>Deschampsia cespitosa</i>	4
Common Bird's-foot-trefoil	<i>Lotus corniculatus</i>	4
Tormentil	<i>Potentilla erecta</i>	4

Table 172: Site 33, Habitat 1: Survey Details

Site Name	30
Date	01/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (temp (°C), wind, cloud, rain)	Valid

Site/Vegetation Description	Unmanaged grassland dominated by rank grass species; ruderal vegetation but with a wide range of forbs; scattered trees at roadside edge; dominated by false oat grass to the west, and more diverse in eastern section; moderate diversity over whole habitat.
Management Notes	Possible low intensive mowing regime.
Condition Notes	Uniform tall sward, little scrub, bracken, and bare ground; good diversity of forbs.
Slope	0
Aspect	0
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	1
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	N/A
Thatch	N/A
Bare Ground	<5
Other Notes	Uniform species composition - Detailed species list compiled
BNG Habitat	g3c5 - Arrhenatherum neutral grassland

BNG Condition	Moderate
NVC Community	MG1 - Arrhenatherum elatius grassland; sub-community not distinctive

Table 173: Site 33, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	352242, 528972	
Species List		
Common Name	Scientific Name	Domin Scale
Cock's-foot	Dactylis glomerata	7
Yorkshire-fog	Holcus lanatus	7
False Oat-grass	Arrhenatherum elatius	7
Common Bent	Agrostis capillaris	4
Rough Meadow-grass	Poa trivialis	4
Curled Dock	Rumex crispus	3
Broad-leaved Dock	Rumex obtusifolius	3
Spear Thistle	Cirsium vulgare	3
Common Nettle	Urtica dioica	3
Ragweed	Ambrosia artemisiifolia	3
Creeping Thistle	Cirsium arvense	3
American Willowherb	Epilobium ciliatum	3
Great Willowherb	Epilobium hirsutum	3
Hard Rush	Juncus inflexus	3
Soft-rush	Juncus effusus	3
Compact Rush	Juncus conglomeratus	3
Oxeye Daisy	Leucanthemum vulgare	3
Mouse-ear-hawkweed	Pilosella officinarum	3

Common Mouse-ear	<i>Cerastium fontanum</i>	3
Lady's-mantle	<i>Alchemilla vulgaris</i>	3
Germander Speedwell	<i>Veronica chamaedrys</i>	3
Dandelion	<i>Taraxacum</i> [spp.]	3
White Clover	<i>Trifolium repens</i>	3
Field Forget-me-not	<i>Myosotis arvensis</i>	3
Meadow Buttercup	<i>Ranunculus acris</i>	3
Glaucous Sedge	<i>Carex flacca</i>	3
Pointed Spear Moss	<i>Calliergonella cuspidata</i>	3
Smooth Hawk's-beard	<i>Crepis capillaris</i>	3
Common Spotted-orchid	<i>Dactylorhiza fuchsii</i>	3
Creeping Buttercup	<i>Ranunculus repens</i>	3
Springy Turf Moss	<i>Rhytidiadelphus squarrosus</i>	3
Red Fescue	<i>Festuca rubra</i>	4
False Fox-sedge	<i>Carex otrubae</i>	3
Cat's-ear	<i>Hypochaeris radicata</i>	3
Red Clover	<i>Trifolium pratense</i>	3
Hogweed	<i>Heracleum sphondylium</i>	5
Broad-leaved Willowherb	<i>Epilobium montanum</i>	3
Selfheal	<i>Prunella vulgaris</i>	3
Perforate St John's-Wort	<i>Hypericum perforatum</i>	3
Wood Avens	<i>Geum urbanum</i>	3
Common Bird's-foot-trefoil	<i>Lotus corniculatus</i>	3
Lesser Trefoil	<i>Trifolium dubium</i>	3

Table 174: Site 34, Habitat 1: Survey Details

Site Name	34
Date	14/07/2022

Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Mature ash woodland with dog's mercury dominated ground flora - sycamore and oak frequent - mix of mature and semi-mature trees.
Management Notes	None evident.
Condition Notes	Single canopy with some limited deadwood and few signs of regeneration - evidence of grazing present and invasive species.
Slope	0
Aspect	0
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	20
Canopy Cover (%)	90
Understory/Shrub Layer height (m)	4
Understorey Cover (%)	15
Field Layer height (mean, m)	0.3
Field Cover (%)	70
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	<5
Leaf Litter	<5
Thatch	<5
Bare Ground	30
Other Notes	Area only large enough for 2 woodland quadrats - Woodland surrounded by agriculture and A66 - High eutrophication likely to be present.

BNG Habitat	w1f7 - Other Lowland mixed deciduous woodland - Priority Habitat
BNG Condition	Moderate
NVC Community	W8e - Fraxinus excelsior-Acer campestre-Mercurialis perennis woodland, Geranium robertianum sub-community

Table 175: Site 34, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	407627, 513878	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Ash	Fraxinus excelsior	7
Pedunculate Oak	Quercus robur	5
Sycamore	Acer pseudoplatanus	3
Wych Elm	Ulmus glabra	2
Shrubs		
Hawthorn	Crataegus monogyna	2
Elder	Sambucus nigra	3
Rhododendron	Rhododendron ponticum	3
Field		
Dog's Mercury	Mercurialis perennis	9
Common Nettle	Urtica dioica	5
Hogweed	Heracleum sphondylium	3
Hedge Woundwort	Stachys sylvatica	3
Cleavers	Galium aparine	4
Rough Meadow-Grass	Poa trivialis	4

Table 176: Site 34, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50x50	4x4
Grid Reference (X, Y)		
407612, 513833		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sycamore	Acer pseudoplatanus	6
Ash	Fraxinus excelsior	7
Wych Elm	Ulmus glabra	3
Shrubs		
Elder	Sambucus nigra	1
Field		
Dog's Mercury	Mercurialis perennis	9
Cleavers	Galium aparine	5
Common Nettle	Urtica dioica	3
Rough-Stalked Feather-Moss	Brachythecium rutabulum	4

Table 177: Site 34, Habitat 2: Survey Details

Site Name	34
Date	14/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Open grass verge with scattered shrubs and mature trees along northern boundary - dominated by ruderal species and rank grasses but with a moderate diversity.
Management Notes	Low intensity mowing regime - access path mown through central area.

Condition Notes	Mown path creates mixed sward with moderate diversity - abundance of scattered scrub and undesirable species however.
Slope	0
Aspect	0
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1
Field Cover (%)	100
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	0
Thatch	<5
Bare Ground	0
Other Notes	Area of relatively similar composition - 3 quadrats undertaken to confirm
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Moderate
NVC Community	MG1 - Arrhenatherum elatius grassland; sub-community not distinctive

Table 178: Site 34, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
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1	2x2	2x2
Grid Reference (X, Y)	407613, 513778	
Species List		
Common Name	Scientific Name	Domin Scale
Bramble	Rubus fruticosus agg.	7
Hairy-Brome	Bromopsis ramosa	2
Black Bent	Agrostis gigantea	7
Creeping Thistle	Cirsium arvense	3
Yorkshire-Fog	Holcus lanatus	5
Curled Dock	Rumex crispus	3
Reed Canary-Grass	Phalaris arundinacea	2
Creeping Buttercup	Ranunculus repens	1
Creeping Thistle	Cirsium arvense	3

Table 179: Site 34, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	407673, 513778	
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	Arrhenatherum elatius	5
Yorkshire-Fog	Holcus lanatus	5
Common Bent	Agrostis capillaris	4
Black Bent	Agrostis gigantea	3
Hedge Woundwort	Stachys sylvatica	3
Creeping Thistle	Cirsium arvense	3
Mugwort	Artemisia vulgaris	3
Bramble	Rubus fruticosus agg.	6
Creeping Buttercup	Ranunculus repens	3

Dandelion	Taraxacum sp	1
Hogweed	Heracleum sphondylium	1

Table 180: Site 34, Habitat 2: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)		
407774, 513768		
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	Arrhenatherum elatius	5
Yorkshire-Fog	Holcus lanatus	6
Bramble	Rubus fruticosus agg.	5
Creeping Thistle	Cirsium arvense	3
Cow Parsley	Anthriscus sylvestris	1
Reed Canary-Grass	Phalaris arundinacea	4
Cock's-Foot	Dactylis glomerata	4
Hedge Woundwort	Stachys sylvatica	2
Common Bent	Agrostis capillaris	3
Black Bent	Agrostis gigantea	3
Creeping Buttercup	Ranunculus repens	2
American Willowherb	Epilobium ciliatum	2
Wood Avens	Geum urbanum	1
Hogweed	Heracleum sphondylium	1

Table 181: Site 34, Habitat 3: Survey Details

Site Name	34
Date	14/07/2022

Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Mature beech and oak woodland with ground flora dominated by dog's mercury and ferns. In open areas ground flora is dominated by rank grasses and ruderal species, with frequent ferns.
Management Notes	None evident - evidence of grazing pressure however.
Condition Notes	Single canopy with extensive signs of damage, including ash dieback - bare ground scattered throughout understorey with significant deadwood. Few signs of regeneration present however.
Slope	0
Aspect	0
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	20
Canopy Cover (%)	85
Understorey/Shrub Layer height (m)	3
Understorey Cover (%)	5
Field Layer height (mean, m)	0.25
Field Cover (%)	65
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	<5
Leaf Litter	<5

Thatch	0
Bare Ground	0
Other Notes	Area only large enough for single quadrat
BNG Habitat	w1f7 - Other Lowland mixed deciduous woodland - Priority Habitat
BNG Condition	Moderate
NVC Community	W10e - Quercus robur-Pteridium aquilinum-Rubus fruticosus woodland, Acer pseudoplatanus-Oxalis acetosella sub-community

Table 182: Site 34, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	407930, 513787	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sycamore	Acer pseudoplatanus	5
Ash	Fraxinus excelsior	2
Holly	Ilex aquifolium	1
Beech	Fagus sylvatica	7
Pedunculate Oak	Quercus robur	6
Douglas Fir	Pseudotsuga menziesii	2
Shrubs		
Elder	Sambucus nigra	2
Hawthorn	Crataegus monogyna	1
Ash	Fraxinus excelsior	1
Field		
Dog's Mercury	Mercurialis perennis	8
Rough-Stalked Feather-Moss	Brachythecium rutabulum	5
Male-Fern	Dryopteris filix-mas	3

Broad Buckler-Fern

Dryopteris dilatata

5

Table 183: Site 36, Habitat 1: Survey Details

Site Name	36
Date	01/06/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Scot's pine plantation, mainly pine; managed as game rearing area; understorey dominated by bracken with false oat-grass.
Management Notes	Managed as game rearing area.
Condition Notes	Plantation - poor.
Slope	0
Aspect	0
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	20
Canopy Cover (%)	50
Understory/Shrub Layer height (m)	4
Field Layer height (mean, m)	1
Field Cover (%)	75
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	0
Thatch	0
Bare Ground	5

Other Notes	Monoculture - similar throughout - Single representative quadrat undertaken
BNG Habitat	w2b - Other Scot's Pine woodland
BNG Condition	Poor
NVC Community	No recognisable NVC community. W18 type but outside of Scotland (limit for natural range)

Table 184: Site 36, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	360172, 527342	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Scots Pine	<i>Pinus sylvestris</i>	7
Douglas Fir	<i>Pseudotsuga menziesii</i>	2
Pedunculate Oak	<i>Quercus robur</i>	2
Shrubs		
Hawthorn	<i>Crataegus monogyna</i>	2
Elder	<i>Sambucus nigra</i>	2
Hazel	<i>Corylus avellana</i>	2
Field		
Bracken	<i>Pteridium aquilinum</i>	7
False Oat-grass	<i>Arrhenatherum elatius</i>	4
Rough Meadow-grass	<i>Poa trivialis</i>	4
Climbing Corydalis	<i>Ceratocarpus claviculata</i>	3
Yorkshire-fog	<i>Holcus lanatus</i>	2
Common Chickweed	<i>Stellaria media</i>	2
Wood-sorrel	<i>Oxalis acetosella</i>	1

Bluebell	Hyacinthoides non-scripta	1
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Table 185: Site 37, Habitat 1: Survey Details

Site Name	37
Date	07/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Alder wet woodland with frequent birch trees - obvious planted origin alongside minor roads - several man-made drainage ditches running through understorey. Ground flora dominated by meadowsweet and other hydrophilic species - brook running through central area of woodland alongside minor road.
Management Notes	No obvious continuous management. Drainage channels may be dredged from time to time.
Condition Notes	Significant fallen and standing deadwood throughout, however there is only a single canopy with little sign of regeneration. Of plantation origin, but now more established.
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	Yes
Peat Depth (if present, cm)	<5
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	75

Understory/Shrub Layer height (m)	4
Understorey Cover (%)	5
Field Layer height (mean, m)	1
Field Cover (%)	80
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	10
Leaf Litter	<5
Thatch	0
Bare Ground	15
Other Notes	Habitat uniform throughout - four quadrats undertaken to confirm - priority habitat status.
BNG Habitat	w1d5 - Alder woodland on floodplains (H91E0) - Priority Habitat/Annex 1
BNG Condition	Moderate
NVC Community	W7a - <i>Alnus glutinosa</i> - <i>Fraxinus excelsior</i> - <i>Lysimachia nemorum</i> woodland, <i>Urtica dioica</i> sub-community

Table 186: Site 37, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	375138, 515761	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Alder	<i>Alnus glutinosa</i>	4
Ash	<i>Fraxinus excelsior</i>	4
Silver Birch	<i>Betula pendula</i>	4
Pedunculate Oak	<i>Quercus robur</i>	1
Goat Willow	<i>Salix caprea</i>	1
Downy Birch	<i>Betula pubescens</i>	2
Sessile Oak	<i>Quercus petraea</i>	2

Sycamore	Acer pseudoplatanus	3
Shrubs		
Elder	Sambucus nigra	2
Rhododendron	Rhododendron ponticum	1
Field		
Meadowsweet	Filipendula ulmaria	6
Common Nettle	Urtica dioica	7
Cleavers	Galium aparine	3
Common Smoothcap	Atrichum undulatum	3
Wood Avens	Geum urbanum	2
Lady-Fern	Athyrium filix-femina	1

Table 187: Site 37, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50x50	4x4
Grid Reference (X, Y)	375099, 515701	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Wych Elm	Ulmus glabra	1
Alder	Alnus glutinosa	7
Ash	Fraxinus excelsior	2
Downy Birch	Betula pubescens	4
Horse-Chestnut	Aesculus hippocastanum	1
Shrubs		
Rhododendron	Rhododendron ponticum	4
Alder	Alnus glutinosa	2
Hazel	Corylus avellana	2
Willow [Spp.]	Salix [spp.]	1

Snowberry	Symphoricarpos albus	1
Field		
Broad Buckler-Fern	Dryopteris dilatata	4
Creeping Buttercup	Ranunculus repens	5
Meadowsweet	Filipendula ulmaria	5
Rough Meadow-Grass	Poa trivialis	4
Marsh-Bedstraw	Galium palustre	3
Wood Avens	Geum urbanum	2
Opposite-Leaved Golden-Saxifrage	Chrysosplenium oppositifolium	3
Rough-Stalked Feather-Moss	Brachythecium rutabulum	3
Reed Canary-Grass	Phalaris arundinacea	4

Table 188: Site 37, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	50x50	4x4
Grid Reference (X, Y)	375079, 515611	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Alder	Alnus glutinosa	8
Ash	Fraxinus excelsior	4
Downy Birch	Betula pubescens	3
Beech	Fagus sylvatica	2
Shrubs		
Alder	Alnus glutinosa	3
Ash	Fraxinus excelsior	1
Raspberry	Rubus idaeus	1
Crack-Willow	Salix fragilis	1
Field		

Lady-Fern	Athyrium filix-femina	4
Meadowsweet	Filipendula ulmaria	7
Bramble	Rubus fruticosus agg.	3
Opposite-Leaved Golden-Saxifrage	Chrysosplenium oppositifolium	3
Common Feather-Moss	Kindbergia praelonga	2
Cleavers	Galium aparine	2
Reed Canary-Grass	Phalaris arundinacea	4
Tufted Hair-Grass	Deschampsia cespitosa	1

Table 189: Site 37, Habitat 1: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	50x50	4x4
Grid Reference (X, Y)		375118, 515650
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Alder	Alnus glutinosa	8
Downy Birch	Betula pubescens	4
Ash	Fraxinus excelsior	2
Shrubs		
Grey Willow	Salix cinerea	1
Field		
Broad Buckler-Fern	Dryopteris dilatata	5
Creeping Soft-Grass	Holcus mollis	4
Meadowsweet	Filipendula ulmaria	3
Bramble	Rubus fruticosus agg.	3
Lady-Fern	Athyrium filix-femina	1
Wood Avens	Geum urbanum	1

Rough-Stalked Feather-Moss	Brachythecium rutabulum	3
Common Feather-Moss	Kindbergia praelonga	3
Common Valerian	Valeriana officinalis	2
Reed Canary-Grass	Phalaris arundinacea	3

Table 190: Site 38, Habitat 1: Survey Details

Site Name	38
Date	14/07/2022
Surveyors	Paul Wolstenholme, Dermot McKee
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Woodland within A1 roundabout - mixed woodland of sycamore, Scots pine, ash and beech - ground flora dominated by common nettle.
Management Notes	None evident - bird and bat boxes present.
Condition Notes	Some limited deadwood but no signs of regeneration, poor understorey and single complex canopy present - likely highly polluted due to proximity to road.
Slope	0
Aspect	0
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15

Canopy Cover (%)	60
Understory/Shrub Layer height (m)	3
Understorey Cover (%)	5
Field Layer height (mean, m)	0.5
Field Cover (%)	80
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	<5
Leaf Litter	<5
Thatch	0
Bare Ground	20
Other Notes	Planted woodland (with self-seeded sycamore) without established ground flora - Similar composition throughout - Detailed species list compiled
BNG Habitat	w1h5 - Other woodland; mixed; mainly broadleaved
BNG Condition	Poor
NVC Community	No recognisable NVC community - developing W8 type woodland but not yet established

Table 191: Site 38, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)		
421499, 505292		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sycamore	Acer pseudoplatanus	7
Scots Pine	Pinus sylvestris	5
Beech	Fagus sylvatica	4
Ash	Fraxinus excelsior	4
Field		

Common Nettle	<i>Urtica dioica</i>	8
Cleavers	<i>Galium aparine</i>	5
Wood Avens	<i>Geum urbanum</i>	5
Common Chickweed	<i>Stellaria media</i>	3
Creeping Buttercup	<i>Ranunculus repens</i>	4
Rough-Stalked Feather-Moss	<i>Brachythecium rutabulum</i>	4
Field Forget-Me-Not	<i>Myosotis arvensis</i>	3
Shrubs		
Elder	<i>Sambucus nigra</i>	4

Table 192: Site 40, Habitat 1: Survey Details

Site Name	40
Date	30/06/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Small woodland screening area at the edge of the A66; MG1 grassland understorey; cycle path running through centre of site.
Management Notes	Relatively unmanaged.
Condition Notes	Trees/shrubs appear to all be of similar age - no signs of regeneration; fairly open canopy.
Slope	20
Aspect	S
Soil pH	N/A

Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	12
Canopy Cover (%)	50
Understory/Shrub Layer height (m)	4
Shrub cover	25
Field Layer height (mean, m)	1
Field Cover (%)	80
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	0
Thatch	5
Bare Ground	20
Other Notes	Area only large enough for single quadrat.
BNG Habitat	w1g7 - Other broadleaved woodland types
BNG Condition	Moderate
NVC Community	No recognisable NVC community - developing W8/W9 type woodland from canopy composition and understorey - but not yet established, ground flora not distinctive.

Table 193: Site 40, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	10x180	4x4
Grid Reference (X, Y)	354352, 528971	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		

Sycamore	Acer pseudoplatanus	5
Ash	Fraxinus excelsior	5
Norway Spruce	Picea abies	1
Shrubs		
Elder	Sambucus nigra	4
Blackthorn	Prunus spinosa	5
Dog-rose	Rosa canina	2
Hazel	Corylus avellana	2
Hawthorn	Crataegus monogyna	2
Gooseberry	Ribes uva-crispa	1
Field		
Bracken	Pteridium aquilinum	6
False Oat-grass	Arrhenatherum elatius	5
Cleavers	Galium aparine	5
Common Nettle	Urtica dioica	4
Field Forget-me-not	Myosotis arvensis	1
Cow Parsley	Anthriscus sylvestris	2
Ash sapling	Fraxinus excelsior	2
Hogweed	Heracleum sphondylium	2
Rough Meadow-grass	Poa trivialis	3
Yorkshire-fog	Holcus lanatus	3
Tufted Vetch	Vicia cracca	2
Broad-leaved Dock	Rumex obtusifolius	1
Cock's-foot	Dactylis glomerata	3
Ground		
Bare ground earth	#N/A	9
Hard standing path	#N/A	5

Table 194: Site 40, Habitat 2: Survey Details

Site Name	Site 40, Habitat 2
Date	30/06/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	19°C, BF2, patchy cloud, dry
Site/Vegetation Description	Grassland strip, part of roadside embankment. Some scattered trees along roadside and areas of dense bracken.
Management Notes	No recent management, but possibly occasionally mown.
Condition Notes	Sward height uniform, species diversity low, bracken encroaching.
Slope	Flat
Aspect	Southerly
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.75
Field Cover (%)	90
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible

Bare Ground	Negligible
Other Notes	
BNG Habitat	Other neutral grassland g3c5
BNG Condition	Poor
NVC Community	MG1a

Table 195: Site 40, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	354566, 528966	
Species List		
Common Name	Scientific Name	Domin Scale
Yorkshire-fog	Holcus lanatus	5
False oat-grass	Arrhenatherum elatius	6
Hogweed	Heracleum sphondylium	1
Yarrow	Achillea millefolium	3
Hedge bedstraw	Galium mollugo	1
White clover	Trifolium repens	3
Perforate St-John's wort	Hypericum perforatum	2
Cock's-foot	Dactylis glomerata	1
Red fescue	Festuca rubra	3
Creeping thistle	Cirsium arvense	1
Ribwort plantain	Plantago lanceolata	2
Springy turf-moss	Rhytidiadelphus squarrosus	8
Meadow crane's-bill	Geranium pratense	1

Table 196: Site 40, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	354512, 528951	
Species List		
Common Name	Scientific Name	Domin Scale
False oat-grass	Arrhenatherum elatius	6
Yorkshire-fog	Holcus lanatus	6
Hogweed	Heracleum sphondylium	2
Meadow crane's-bill	Geranium pratense	3
Hedge woundwort	Stachys sylvatica	2
Bramble	Rubus fruticosus agg.	2
Hedge bedstraw	Galium mollugo	4
Garden lady's-mantle	Alchemilla mollis	1
Creeping thistle	Cirsium arvense	1
Ribwort plantain	Plantago lanceolata	2
Germander speedwell	Veronica chamaedrys	2
Springy turf-moss	Rhytidiadelphus squarrosus	8
Yarrow	Achillea millefolium	1

Table 197: Site 40, Habitat 2: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	354464, 528959	
Species List		
Common Name	Scientific Name	Domin Scale
False oat-grass	Arrhenatherum elatius	4
Red fescue	Festuca rubra	6
Yorkshire-fog	Holcus lanatus	5

Bramble	Rubus fruticosus agg.	3
Common mouse-ear	Cerastium fontanum	2
Meadow crane's-bill	Geranium pratense	2
Hogweed	Heracleum sphondylium	2
White clover	Trifolium repens	4
Springy turf-moss	Rhytidiadelphus squarrosus	8

Table 198: Site 41, Habitat 1: Survey Details

Site Name	41
Date	30/06/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Mature woodland on steep banks of river; woodland dominated by sessile oak, with grassland ground-flora. Understorey sparse and scattered; badger main set at quadrat 2 with signs of recent activity. Some planted trees at boundary of Q1.
Management Notes	Appears heavily grazed at western extent; otherwise unmanaged but likely affected by run-off from adjacent arable land.
Condition Notes	Little dead wood, few seedlings present, and a complex canopy.
Slope	45
Aspect	NW
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A

Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	60
Understory/Shrub Layer height (m)	4
Field Layer height (mean, m)	0.75
Field Cover (%)	75
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	5
Leaf Litter	<5
Thatch	5
Bare Ground	5
Other Notes	Steep banks - survey undertaken from top of bank.
BNG Habitat	w1f7 - Other lowland mixed deciduous woodland - Priority Habitat
BNG Condition	Moderate
NVC Community	W11 - Quercus petraea-Betula pubescens-Oxalis acetosella woodland; sub-community not distinctive from surveyable area

Table 199: Site 41, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	356245, 529306	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Ash	Fraxinus excelsior	5
Himalayan Birch	Betula utilis	1
Pedunculate Oak	Quercus robur	3
Sycamore	Acer pseudoplatanus	5

Wild cherry	<i>Prunus avium</i>	3
Alder	<i>Alnus glutinosa</i>	1
Huntingdon Elm	<i>Ulmus glabra</i> x <i>minor</i> = <i>U. x vegeta</i>	1
Beech	<i>Fagus sylvatica</i>	1
Shrubs		
Hawthorn	<i>Crataegus monogyna</i>	3
Hazel	<i>Corylus avellana</i>	1
Elder	<i>Sambucus nigra</i>	2
Wild cherry	<i>Prunus avium</i>	2
Field		
False Oat-grass	<i>Arrhenatherum elatius</i>	6
Bramble	<i>Rubus fruticosus</i> agg.	6
Cleavers	<i>Galium aparine</i>	4

Table 200: Site 41, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	16x150	4x4
Grid Reference (X, Y)	356232, 529201	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Ash	<i>Fraxinus excelsior</i>	3
Sycamore	<i>Acer pseudoplatanus</i>	4
Beech	<i>Fagus sylvatica</i>	1
Sessile Oak	<i>Quercus petraea</i>	5
Rowan	<i>Sorbus aucuparia</i>	2
Cherry Plum	<i>Prunus cerasifera</i>	1
Downy Birch	<i>Betula pubescens</i>	2
Aspen	<i>Populus tremula</i>	2

Shrubs		
Elder	Sambucus nigra	2
Field		
Hedge Bedstraw	Galium mollugo	4
Wavy Hair-grass	Deschampsia flexuosa	7
Sweet Vernal-grass	Anthoxanthum odoratum	3
Red Fescue	Festuca rubra	4
Bank Haircap	Polytrichum formosum	1
Springy Turf-moss	Rhytidiadelphus squarrosus	6
Neat Feather-moss	Scleropodium purum	2
Rowan sapling	Sorbus aucuparia	4
Bare ground & Leaf Litter	#N/A	1

Table 201: Site 41, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	20x120	4x4
Grid Reference (X, Y)		356160, 529121
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Aspen	Populus tremula	2
Sessile Oak	Quercus petraea	5
Ash	Fraxinus excelsior	3
Sycamore	Acer pseudoplatanus	5
Wych Elm	Ulmus glabra	2
Silver Birch	Betula pendula	2
Shrubs		
Elder	Sambucus nigra	4

Hawthorn	<i>Crataegus monogyna</i>	2
Hazel	<i>Corylus avellana</i>	1
Field		
False Oat-grass	<i>Arrhenatherum elatius</i>	5
Cock's-foot	<i>Dactylis glomerata</i>	4
Smooth Meadow-grass	<i>Poa pratensis</i>	5
Foxglove	<i>Digitalis purpurea</i>	1
Common Nettle	<i>Urtica dioica</i>	3
Cleavers	<i>Galium aparine</i>	3
Common Sorrel	<i>Rumex acetosa</i>	2
Nipplewort	<i>Lapsana communis</i>	1
Yorkshire-fog	<i>Holcus lanatus</i>	3
Barren Brome	<i>Anisantha sterilis</i>	2

Table 202: Site 41, Habitat 1: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	50 x 50	4 x 4
Grid Reference (X, Y)		356011, 529096
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sessile Oak	<i>Quercus petraea</i>	8
Ash	<i>Fraxinus excelsior</i>	5
Shrubs		
Elder	<i>Sambucus nigra</i>	4
Field		
Rough Meadow-grass	<i>Poa trivialis</i>	7
Perennial Rye-grass	<i>Lolium perenne</i>	4
Common Nettle	<i>Urtica dioica</i>	3

Common Chickweed	Stellaria media	3
Rough-stalked Feather-moss	Brachythecium rutabulum	1

Table 203: Site 42, Habitat 1: Survey Details

Site Name	Site 42
Date	30/06/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	18°C, BF3, patchy cloud, dry
Site/Vegetation Description	Grassland adjacent to River Eamont. Occasional scattered trees. Very narrow to non-existent strip of riparian vegetation along river (species present included in species list but not in quadrat data). Himalayan balsam present along small watercourses at NY 55705 29308 and NY 55857 29223.
Management Notes	Fenced, but sheep present and clearly grazed. No other current management apparent.
Condition Notes	Generally rather poor condition overall and Himalayan balsam present. However, one or two better species present such as meadow crane's-bill and crosswort.
Slope	Flat
Aspect	N/A
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.5
Field Cover (%)	>95%

Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5%
Other Notes	
BNG Habitat	Arrhenatherum neutral grassland g3c5, 11, 58
BNG Condition	Moderate
NVC Community	MG1b is the best fit for this habitat

Table 204: Site 42, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	355853, 529238	
Species List		
Common Name	Scientific Name	Domin Scale
False oat-grass	Arrhenatherum elatius	6
Yorkshire-fog	Holcus lanatus	4
Meadow foxtail	Alopecurus pratensis	4
Rough meadow-grass	Poa trivialis	4
Creeping bent	Agrostis stolonifera	3
Common sorrel	Rumex acetosa	4
Cleavers	Galium aparine	3
Common nettle	Urtica dioica	2
Meadow Crane's-bill	Geranium pratense	2
Crosswort	Cruciata laevipes	2
Cock's-foot	Dactylis glomerata	2

Table 205: Site 42, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	355786, 529269	
Species List		
Common Name	Scientific Name	Domin Scale
False oat-grass	Arrhenatherum elatius	6
Meadow foxtail	Alopecurus pratensis	5
Red fescue	Festuca rubra	5
Yorkshire-fog	Holcus lanatus	4
Hedge bedstraw	Galium mollugo	5
Meadow crane's-bill	Geranium pratense	3
Common nettle	Urtica dioica	3
Common sorrel	Rumex acetosa	3
Tufted vetch	Vicia cracca	1
Common feather-moss	Kindbergia praelonga	3

Table 206: Site 42, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	355734, 529288	
Species List		
Common Name	Scientific Name	Domin Scale
False oat-grass	Arrhenatherum elatius	5
Meadow crane's-bill	Geranium pratense	3
Cock's-foot	Dactylis glomerata	1
Red fescue	Festuca rubra	6
Crosswort	Cruciata laevipes	3
Germander speedwell	Veronica chamaedrys	3
Creeping thistle	Cirsium arvense	2

Lady's bedstraw	Galium verum	2
Hedge bedstraw	Galium mollugo	2
Common sorrel	Rumex acetosa	3
Yarrow	Achillea millefolium	1

Table 207: Site 43, Habitat 1: Survey Details

Site Name	Site 43
Date	14/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Large area of mixed plantation and self-seeded woodland following route of watercourses. Trees generally semi-mature/ mature and of broadly similar age. A small pond present at NZ 07806 13157 but was completely dry during the survey (o submerged or floating aquatic plants; very limited emergent vegetation including water mint, brooklime, great willowherb, soft rush and wavy bittercress; Himalayan balsam occasionally present).
Management Notes	No current management apparent.
Condition Notes	Age structure rather uniform. Little substantial fallen wood. Field layer species poor and generally dominated by nettle/hogweed etc, although 'ancient' indicators present. Understorey sparse.
Slope	Flat to steeply sloping along watercourse.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	N/A

Canopy Layer Height (mean, m)	20
Canopy Cover (%)	90
Understory/Shrub Layer height (m)	4
Understorey Cover (%)	5
Field Layer height (mean, m)	40
Field Cover (%)	8
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	<5
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	40
Other Notes	
BNG Habitat	Other woodland; mixed w1h
BNG Condition	Moderate
NVC Community	N/A -- plantation.

Table 208: Site 43, Habitat 1: Quadrat 1

Quadrat Number		Quadrat Size (Overall)	Quadrat Size (Field Layer)
1		Whole Area	Whole Area
Grid Reference (X, Y)		40755, 513208	
Species List			
Common Name	Scientific Name	Domin Scale	
Ash	Fraxinus excelsior	4	
Wild Cherry	Prunus avium	4	
Rowan	Sorbus aucuparia	3	
Wych Elm	Ulmus glabra	3	
Elder	Sambucus nigra	5	
Douglas Fir	Pseudotsuga menziesii	5	

European Larch	<i>Larix decidua</i>	4
Scots Pine	<i>Pinus sylvestris</i>	4
Sycamore	<i>Acer pseudoplatanus</i>	5
Hybrid Black-Poplar	<i>Populus nigra</i> [spp]	3
Hazel	<i>Corylus avellana</i>	4
Hawthorn	<i>Crataegus monogyna</i>	4
Pedunculate Oak	<i>Quercus robur</i>	3
Nettle-Leaved Bellflower	<i>Campanula trachelium</i>	3
Hedge Woundwort	<i>Stachys sylvatica</i>	5
Wood Avens	<i>Geum urbanum</i>	5
Dog's Mercury	<i>Mercurialis perennis</i>	7
Hogweed	<i>Heracleum sphondylium</i>	5
Common Nettle	<i>Urtica dioica</i>	7
Garlic	<i>Allium sativum</i>	4
Herb-Robert	<i>Geranium robertianum</i>	5
Bluebell	<i>Hyacinthoides non-scripta</i>	3
False Oat-Grass	<i>Arrhenatherum elatius</i>	4
Cock's-foot	<i>Dactylis glomerata</i>	4
Creeping Thistle	<i>Cirsium arvense</i>	4
Red Campion	<i>Silene dioica</i>	3
Broad-leaved Dock	<i>Rumex obtusifolius</i>	4
Wood Dock	<i>Rumex sanguineus</i>	4
Wood-Sedge	<i>Carex sylvatica</i>	3
Broad Buckler-Fern	<i>Dryopteris dilatata</i>	7
Male-Fern	<i>Dryopteris filix-mas</i>	5
Himalayan Balsam	<i>Impatiens glandulifera</i>	4
Nipplewort	<i>Lapsana communis</i>	3
Creeping Buttercup	<i>Ranunculus repens</i>	4
Lesser Burdock	<i>Arctium minus</i>	4

Beech	Fagus sylvatica	4
Rhododendron	Rhododendron ponticum	1
Raspberry	Rubus idaeus	4
Rough Meadow-Grass	Poa trivialis	4
Yorkshire-Fog	Holcus lanatus	4
Alder	Alnus glutinosa	3

Table 209: Site 44, Habitat 1: Survey Details

Site Name	Site 44
Date	14/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Area of woodland along a stream valley (Habitat 1) with conifer plantation (Habitat 2) at the western end. In the woodland the trees are mainly semi-mature/early mature.
Management Notes	No current management apparent.
Condition Notes	Reasonable quantities of fallen dead wood and some evidence of regeneration.
Slope	Shallow and steeply sloping on both sides of a stream valley.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland

Canopy Layer Height (mean, m)	18
Canopy Cover (%)	90
Understory/Shrub Layer height (m)	6
Understorey Cover (%)	10
Field Layer height (mean, m)	0.3
Field Cover (%)	90
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	10
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	10
Other Notes	This is Priority Habitat
BNG Habitat	Other upland mixed ashwoods w1b6
BNG Condition	Moderate
NVC Community	W9a

Table 210: Site 44, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	406847, 514074	
Species List		
Common Name	Scientific Name	Domin Scale
Sycamore	<i>Acer pseudoplatanus</i>	5
Wych Elm	<i>Ulmus glabra</i>	4
Elder	<i>Sambucus nigra</i>	5
Ash	<i>Fraxinus excelsior</i>	5
Common Nettle	<i>Urtica dioica</i>	7
Alder	<i>Alnus glutinosa</i>	3

Rowan	<i>Sorbus aucuparia</i>	3
Leyland Cypress	<i>Cupressus × leylandii</i>	3
Male-Fern	<i>Dryopteris filix-mas</i>	5
Hazel	<i>Corylus avellana</i>	4
Hawthorn	<i>Crataegus monogyna</i>	4
Dog's Mercury	<i>Mercurialis perennis</i>	7
Cleavers	<i>Galium aparine</i>	7
Garlic	<i>Allium sativum</i>	5
Red Campion	<i>Silene dioica</i>	4
Hedge Woundwort	<i>Stachys sylvatica</i>	4
Enchanter's-Nightshade	<i>Circaea lutetiana</i>	3
Wood Avens	<i>Geum urbanum</i>	4
Pedunculate Oak	<i>Quercus robur</i>	3
Holly	<i>Ilex aquifolium</i>	3
Foxglove	<i>Digitalis purpurea</i>	4
Raspberry	<i>Rubus idaeus</i>	4
Bramble	<i>Rubus fruticosus</i> agg.	4
Snowberry	<i>Symphoricarpos albus</i>	3
False Oat-Grass	<i>Arrhenatherum elatius</i>	4
Cock's-foot	<i>Dactylis glomerata</i>	4
Barren brome	<i>Anisantha sterilis</i>	3
Rough Meadow-grass	<i>Poa trivialis</i>	5
Hogweed	<i>Heracleum sphondylium</i>	4
Bluebell	<i>Hyacinthoides non-scripta</i>	5

Table 211: Site 44, Habitat 2: Survey Details

Site Name	Site 44
Date	14/07/2022
Surveyors	Dermot McKee and Fraser Allan

Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Area of woodland along a stream valley (Habitat 1) with conifer plantation (Habitat 2) at the western end. In the woodland the trees are mainly semi-mature/early mature.
Management Notes	No current management apparent.
Condition Notes	Reasonable quantities of fallen dead wood and some evidence of regeneration.
Slope	Shallow and steeply sloping on both sides of a stream valley.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	90
Understory/Shrub Layer height (m)	6
Understorey Cover (%)	10
Field Layer height (mean, m)	0.3
Field Cover (%)	90
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	10
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	10
Other Notes	Conifer Plantation - Detailed species list compiled

BNG Habitat	w1h6 - Other woodland; mixed; mainly conifer
BNG Condition	Poor
NVC Community	No recognisable NVC community

Table 212: Site 44, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	406603, 514093	
Species List		
Common Name	Scientific Name	Domin Scale
Common Nettle	<i>Urtica dioica</i>	7
Dog's Mercury	<i>Mercurialis perennis</i>	4
Bramble	<i>Rubus fruticosus</i> agg.	4
Cleavers	<i>Galium aparine</i>	5
Bluebell	<i>Hyacinthoides non-scripta</i>	3
Foxglove	<i>Digitalis purpurea</i>	4
Hogweed	<i>Heracleum sphondylium</i>	4
Wood Avens	<i>Geum urbanum</i>	5
False Oat-Grass	<i>Arrhenatherum elatius</i>	5
Cock's-foot	<i>Dactylis glomerata</i>	4
Rough Meadow-grass	<i>Poa trivialis</i>	5
Bearded Couch	<i>Elymus caninus</i>	3
Elder	<i>Sambucus nigra</i>	4
Sycamore	<i>Acer pseudoplatanus</i>	5
Alder	<i>Alnus glutinosa</i>	3
Sitka Spruce	<i>Picea sitchensis</i>	7

Table 213: Site 45, Habitat 1: Survey Details

Site Name	45
Date	14/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Plantation woodland - Lawson's cypress dominated with a bare ground understorey.
Management Notes	Plantation - evidence of felling present.
Condition Notes	Deadwood present throughout woodland - no woodland indicators or signs of regeneration.
Slope	0
Aspect	0
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	20
Canopy Cover (%)	75
Understory/Shrub Layer height (m)	3
Understorey Cover (%)	<5
Field Layer height (mean, m)	0
Field Cover (%)	0
Ground Layer height (above ground mean, m)	0

Ground Cover (%)	0
Leaf Litter	0
Thatch	0
Bare Ground	5
Other Notes	Original site split into two habitats. Uniform habitat - Single detailed species list compiled
BNG Habitat	w2c - Other coniferous woodland
BNG Condition	Poor
NVC Community	No recognisable NVC community. Bare understorey with only a rare abundance of ferns as woodland indicator species

Table 214: Site 45, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	405862, 514082	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Lawson's Cypress	<i>Chamaecyparis lawsoniana</i>	10
Black-Poplar [Spp]	<i>Populus nigra</i> [spp]	3
Ash	<i>Fraxinus excelsior</i>	1
Scots Pine	<i>Pinus sylvestris</i>	1
Downy Birch	<i>Betula pubescens</i>	2
Pedunculate Oak	<i>Quercus robur</i>	1
Shrubs		
Hawthorn	<i>Crataegus monogyna</i>	1
Field		
Male-Fern	<i>Dryopteris filix-mas</i>	1

Table 215: Site 45, Habitat 2: Survey Details

Site Name	45
Date	14/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Plantation woodland - dominated by Scots pine and sycamore with a dog's mercury and male-fern ground flora - open with significant sunlight penetration.
Management Notes	Plantation - evidence of felling present.
Condition Notes	Deadwood present throughout woodland - woodland indicators, signs of regeneration and temporary open space present. Plantation woodland in favourable condition
Slope	0
Aspect	0
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	20
Canopy Cover (%)	95
Understory/Shrub Layer height (m)	3
Understorey Cover (%)	<5
Field Layer height (mean, m)	0.75
Field Cover (%)	90

Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	35
Leaf Litter	<5
Thatch	<5
Bare Ground	5
Other Notes	Original site split into two habitats. Composition fairly uniform - 3 representative quadrats undertaken
BNG Habitat	w2b - Other Scot's Pine woodland
BNG Condition	Moderate
NVC Community	No recognisable canopy NVC community; ground flora indicates potential historic W9 woodland type.

Table 216: Site 45, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	405969, 514151	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Scots Pine	<i>Pinus sylvestris</i>	8
Sycamore	<i>Acer pseudoplatanus</i>	6
Shrubs		
Elder	<i>Sambucus nigra</i>	2
Sycamore	<i>Acer pseudoplatanus</i>	2
Field		
Dog's Mercury	<i>Mercurialis perennis</i>	9
Bramble	<i>Rubus fruticosus</i> agg.	3
Enchanter's-Nightshade	<i>Circaea lutetiana</i>	2

Broad Buckler-Fern	<i>Dryopteris dilatata</i>	4
Rough-Stalked Feather-Moss	<i>Brachythecium rutabulum</i>	8
Common Feather-Moss	<i>Kindbergia praelonga</i>	5

Table 217: Site 45, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50x50	4x4
Grid Reference (X, Y)		405938, 514087
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Scots Pine	<i>Pinus sylvestris</i>	8
Sycamore	<i>Acer pseudoplatanus</i>	6
Field		
Male-Fern	<i>Dryopteris filix-mas</i>	4
Broad Buckler-Fern	<i>Dryopteris dilatata</i>	4
Hairy-Brome	<i>Bromopsis ramosa</i>	4
Common Nettle	<i>Urtica dioica</i>	5
Dog's Mercury	<i>Mercurialis perennis</i>	3
Wood-Sorrel	<i>Oxalis acetosella</i>	5
Rough-Stalked Feather-Moss	<i>Brachythecium rutabulum</i>	5
Herb-Robert	<i>Geranium robertianum</i>	3
Enchanter's-Nightshade	<i>Circaea lutetiana</i>	2
Sycamore Seedling	<i>Acer pseudoplatanus</i>	2
Rough Meadow-Grass	<i>Poa trivialis</i>	2

Table 218: Site 45, Habitat 2: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	50x50	4x4

Grid Reference (X, Y)		405940, 513992
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Scots Pine	Pinus sylvestris	8
Sycamore	Acer pseudoplatanus	7
Shrubs		
Sycamore	Acer pseudoplatanus	3
Pedunculate Oak	Quercus robur	1
Hawthorn	Crataegus monogyna	1
Field		
Male-Fern	Dryopteris filix-mas	9
Herb-Robert	Geranium robertianum	3
Cleavers	Galium aparine	7
Bramble	Rubus fruticosus agg.	6
Rough-Stalked Feather-Moss	Brachythecium rutabulum	6

Table 219: Site 46, Habitat 1: Survey Details

Site Name	Site 46
Date	140722
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Narrow strip of woodland either side of road. Ash dominated towards north, oak dominated towards south. Notable mature oak and beech trees towards south (habitat really becomes a treeline over Arrhenatherum neutral grassland in the very south).

Management Notes	No current management.
Condition Notes	Occasional areas of Ash seedlings and saplings but little other evidence of regeneration. Little fallen deadwood but reasonable variation in age structure.
Slope	Gently sloping towards the north along a dry watercourse.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	25
Canopy Cover (%)	90
Understory/Shrub Layer height (m)	5
Understorey Cover (%)	10
Field Layer height (mean, m)	30
Field Cover (%)	60
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	10
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	10
Other Notes	This is Priority Habitat
BNG Habitat	Other lowland mixed deciduous woodland w1f7
BNG Condition	Moderate
NVC Community	W9a in north tending towards W10c in south

Table 220: Site 46, Habitat 1: Quadrat 1

Species List		
Common Name	Scientific Name	Domin Scale
Ash	<i>Fraxinus excelsior</i>	5
Pedunculate Oak	<i>Quercus robur</i>	5
Beech	<i>Fagus sylvatica</i>	4
Wych Elm	<i>Ulmus glabra</i>	4
Sycamore	<i>Acer pseudoplatanus</i>	4
Dog's Mercury	<i>Mercurialis perennis</i>	7
Dog-Rose	<i>Rosa canina</i>	3
Hedge Bedstraw	<i>Galium mollugo</i>	3
False Oat-Grass	<i>Arrhenatherum elatius</i>	5
Hawthorn	<i>Crataegus monogyna</i>	4
Elder	<i>Sambucus nigra</i>	4
Holly	<i>Ilex aquifolium</i>	4
Common Ivy	<i>Hedera helix</i>	4
Common Nettle	<i>Urtica dioica</i>	4
Male-Fern	<i>Dryopteris filix-mas</i>	4
Broad Buckler Fern	<i>Dryopteris dilatata</i>	4
Rough Meadow-Grass	<i>Poa trivialis</i>	5
Wood Dock	<i>Rumex sanguineus</i>	4
Herb-Robert	<i>Geranium robertianum</i>	4
Pignut	<i>Conopodium majus</i>	3
Common Dog-Violet	<i>Viola riviniana</i>	4
Silver Birch	<i>Betula pendula</i>	3
Barren Brome	<i>Anisantha sterilis</i>	3
Meadowsweet	<i>Filipendula ulmaria</i>	3
Red Campion	<i>Silene dioica</i>	3

Hedge Woundwort	Stachys sylvatica	4
Alder	Alnus glutinosa	3
Creeping Thistle	Cirsium arvense	3
Honeysuckle	Lonicera periclymenum	3
Hogweed	Heracleum sphondylium	3
Creeping Buttercup	Ranunculus repens	3
Swan's-neck thyme-moss	Mnium hornum	5
Rough-stalked feather-moss	Brachythecium rutabulum	5
Springy turf-moss	Rhytidiadelphus squarrosus	5

Table 221: Site 47, Habitat 1 Survey Details

Site Name	Site 47
Date	15/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Agricultural grassland. Grass composition difficult to properly determine however high concentration of perennial rye-grass with Yorkshire-fog and occasional false Oat-Grass etc. Creeping thistle and nettles prominent around margins. Other herbs infrequent or absent.
Management Notes	This is a grass crop /sheep grazed. Very recently cut.
Condition Notes	Poor
Slope	Gently sloping towards north.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A

Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	Cut to short sward.
Field Cover (%)	N/A
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	N/A
Thatch	N/A
Bare Ground	N/A
Other Notes	Species poor seeded agricultural grassland so no NVC or species list.
BNG Habitat	Modified grassland g4
BNG Condition	Poor
NVC Community	NVC not applicable.

Table 222: Site 48, Habitat 2: Survey Details

Site Name	48
Date	14/07/33
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Outgrown hedgerow along A66 lay-by with scattered mature trees. Greater than 5m in width for majority of length before becoming mixed woodland corridor

Management Notes	None evident
Condition Notes	Complex canopy with sparse scattered understorey - so dead wood present and signs of regeneration. Un-developed edge and absence of rides/glades. Diverse age range present.
Slope	0
Aspect	0
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	No
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	7
Canopy Cover (%)	10
Understorey/Shrub Layer height (m)	5
Understorey Cover (%)	80
Field Layer height (mean, m)	0.15
Field Cover (%)	15
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	15
Leaf Litter	<5
Thatch	N/A
Bare Ground	75
Other Notes	Hedgerow type habitat: 2x linear quadrats undertaken
BNG Habitat	h3h - Mixed scrub
BNG Condition	Moderate
NVC Community	W21 Crataegus monogyna – Hedera helix scrub

Table 223: Site 48, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	150x20	4 x 4
Grid Reference (X, Y)		
405285, 513819		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Hawthorn	<i>Crataegus monogyna</i>	6
Ash	<i>Fraxinus excelsior</i>	5
Wych Elm	<i>Ulmus glabra</i>	7
Holly	<i>Ilex aquifolium</i>	1
Blackthorn	<i>Prunus spinosa</i>	3
Field		
Common Nettle	<i>Urtica dioica</i>	4
Dog's Mercury	<i>Mercurialis perennis</i>	4
Creeping Thistle	<i>Cirsium arvense</i>	3
Lesser Burdock	<i>Arctium minus</i>	1
Cleavers	<i>Galium aparine</i>	3
Garlic Mustard	<i>Alliaria petiolata</i>	3
Rough-Stalked Feather-Moss	<i>Brachythecium rutabulum</i>	5
False Oat-Grass	<i>Arrhenatherum elatius</i>	1
Rough Meadow-Grass	<i>Poa trivialis</i>	3

Table 224: Site 48, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	150x20	4x4
Grid Reference (X, Y)		
405112, 513810		
Species List		
Common Name	Scientific Name	Domin Scale

Canopy		
Hawthorn	Crataegus monogyna	7
Sycamore	Acer pseudoplatanus	5
Elder	Sambucus nigra	4
Hazel	Corylus avellana	1
Wild Cherry	Prunus avium	2
Pedunculate Oak	Quercus robur	1
Field Maple	Acer campestre	1
Wych Elm	Ulmus glabra	3
Field		
Common Nettle	Urtica dioica	4
Garlic Mustard	Alliaria petiolata	4
Cleavers	Galium aparine	4
Rough-Stalked Feather-Moss	Brachythecium rutabulum	4

Table 225: Site 48, Habitat 2: Survey Details

Site Name	48
Date	14.07.33
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Mixed woodland corridor extending along Barnard Castle Lane - up-planted corridor with hedgerow as boundary along road side. Mature oak and planted beech with mix range of semi-mature planted/self-seeded species. grass dominated ground flora. The planted nature of the majority of the canopy prevents priority habitat status.
Management Notes	None evident
Condition Notes	Complex canopy with sparse scattered understorey - so dead wood present and signs of regeneration.

Slope	0
Aspect	0
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	No
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	80
Understory/Shrub Layer height (m)	3
Understorey Cover (%)	15
Field Layer height (mean, m)	0.15
Field Cover (%)	55
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	15
Leaf Litter	<5
Thatch	<5
Bare Ground	20
Other Notes	Linear habitat - 3 woodland quadrats undertaken
BNG Habitat	w1g7 - Other broadleaved woodland types
BNG Condition	Moderate
NVC Community	W10 - Quercus robur-Pteridium aquilinum-Rubus fruticosus woodland - Sub-community not distinctive

Table 226: Site 48, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	300 x 30	300 x 30
Grid Reference (X, Y)	405000, 514032	

Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Wild Cherry	<i>Prunus avium</i>	7
Pedunculate Oak	<i>Quercus robur</i>	4
Field Maple	<i>Acer campestre</i>	7
Ash	<i>Fraxinus excelsior</i>	1
Horse-Chestnut	<i>Aesculus hippocastanum</i>	1
Hawthorn	<i>Crataegus monogyna</i>	5
Beech	<i>Fagus sylvatica</i>	4
Field		
False Oat-Grass	<i>Arrhenatherum elatius</i>	8
Creeping Bent	<i>Agrostis stolonifera</i>	4
Meadow Foxtail	<i>Alopecurus pratensis</i>	3
Cock's-Foot	<i>Dactylis glomerata</i>	2
Pignut	<i>Conopodium majus</i>	1
Hedge Bedstraw	<i>Galium mollugo</i>	4
Bush Vetch	<i>Vicia sepium</i>	1
Cleavers	<i>Galium aparine</i>	2
Germander Speedwell	<i>Veronica chamaedrys</i>	2
Common Couch	<i>Elytrigia repens</i>	2
Rough Stalked Feather-Moss	<i>Brachythecium rutabulum</i>	4
Greater Stitchwort	<i>Stellaria holostea</i>	2

Table 227: Site 48, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	300 x 30	300 x 30
Grid Reference (X, Y)	405059, 514326	
Species List		

Common Name	Scientific Name	Domin Scale
Canopy		
Beech	<i>Fagus sylvatica</i>	6
Field Maple	<i>Acer campestre</i>	4
Aspen	<i>Populus tremula</i>	4
Scots Pine	<i>Pinus sylvestris</i>	2
Pedunculate Oak	<i>Quercus robur</i>	3
Ash	<i>Fraxinus excelsior</i>	3
Douglas Fir	<i>Pseudotsuga menziesii</i>	1
Sycamore	<i>Acer pseudoplatanus</i>	3
Lodgepole Pine	<i>Pinus contorta</i>	6
Shrubs		
Aspen	<i>Populus tremula</i>	2
Wild Cherry	<i>Prunus avium</i>	2
Field		
False Oat-Grass	<i>Arrhenatherum elatius</i>	8
Common Dog-Violet	<i>Viola riviniana</i>	7
Field Maple [Seedling]	<i>Acer campestre</i>	2
Ash [Seedling]	<i>Fraxinus excelsior</i>	2
Herb-Robert	<i>Geranium robertianum</i>	1
Wood Avens	<i>Geum urbanum</i>	2
Rough Stalked Feather-Moss	<i>Brachythecium rutabulum</i>	5
Common Bent	<i>Agrostis capillaris</i>	2

Table 228: Site 48, Habitat 2: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	300x30	300x30
Grid Reference (X, Y)	404982, 514743	

Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Horse-Chestnut	Aesculus hippocastanum	3
Beech	Fagus sylvatica	7
Pedunculate Oak	Quercus robur	3
Aspen	Populus tremula	2
Ash	Fraxinus excelsior	4
Fir [Spp]	Abies spp	2
Shrubs		
Blackthorn	Prunus spinosa	4
Sycamore	Acer pseudoplatanus	2
Hawthorn	Crataegus monogyna	4
Gooseberry	Ribes uva-crispa	2
Dog-Rose	Rosa canina	1
Field		
Dog's Mercury	Mercurialis perennis	4
False Oat-Grass	Arrhenatherum elatius	8
Cock's-Foot	Dactylis glomerata	3
Yorkshire-Fog	Holcus lanatus	2
Rough Stalked Feather-Moss	Brachythecium rutabulum	5
Bush Vetch	Vicia sepium	3
Aspen [Seedling]	Populus tremula	3
Woodruff	Galium odoratum	3

Table 229: Site 49, Habitat 1: Survey Details

Site Name	49
Date	13/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht

Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Mixed ash, birch and oak woodland with developed understorey dominated by downy birch. Dog's mercury, meadowsweet and enchanter's nightshade abundant within ground flora.
Management Notes	None evident - some signs of potential grazing present.
Condition Notes	Some large fallen deadwood present, with seedlings and saplings as regeneration - canopy trees all similar age however and no veteran trees.
Slope	0
Aspect	0
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	75
Understorey/Shrub Layer height (m)	8
Understorey Cover (%)	45
Field Layer height (mean, m)	0.3
Field Cover (%)	60
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	5
Leaf Litter	<5
Thatch	None

Bare Ground	Scattered
Other Notes	Woodland with man-made waterbody at northern extent - separated as marginal vegetation community
BNG Habitat	W1b - Upland mixed ashwoods - Priority Habitat
BNG Condition	Moderate
NVC Community	W9a - Fraxinus excelsior-Sorbus aucuparia-Mercurialis perennis woodland, typical sub-community

Table 130: Site 49, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)		404646, 514006
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Pedunculate Oak	Quercus robur	5
Ash	Fraxinus excelsior	5
Downy Birch	Betula pubescens	4
Alder	Alnus glutinosa	3
Sycamore	Acer pseudoplatanus	2
Wych Elm	Ulmus glabra	1
Shrubs		
Hawthorn	Crataegus monogyna	1
Wych Elm	Ulmus glabra	2
Ash	Fraxinus excelsior	1
Downy Birch	Betula pubescens	5
Field		
Male-Fern	Dryopteris filix-mas	4

Broad Buckler-Fern	<i>Dryopteris dilatata</i>	4
Meadowsweet	<i>Filipendula ulmaria</i>	6
Bramble	<i>Rubus fruticosus</i> agg.	4
Herb-Robert	<i>Geranium robertianum</i>	3
Enchanter's-Nightshade	<i>Circaea lutetiana</i>	1
Common Dog-Violet	<i>Viola riviniana</i>	3
Rough-Stalked Feather-Moss	<i>Brachythecium rutabulum</i>	3
Common Feather-Moss	<i>Kindbergia praelonga</i>	4
Wood Avens	<i>Geum urbanum</i>	2
False Oat-Grass	<i>Arrhenatherum elatius</i>	3
Tufted Hair-Grass	<i>Deschampsia cespitosa</i>	2
Soft-Rush	<i>Juncus effusus</i>	1
Common Tamarisk-Moss	<i>Thuidium tamariscinum</i>	4

Table 131: Site 49, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	50x50	4x4
Grid Reference (X, Y)		
404649, 514086		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Alder	<i>Alnus glutinosa</i>	2
Pedunculate Oak	<i>Quercus robur</i>	3
Hornbeam	<i>Carpinus betulus</i>	1
Ash	<i>Fraxinus excelsior</i>	4
Wych Elm	<i>Ulmus glabra</i>	1
Sycamore	#N/A	1
Shrubs		

Downy Birch	Betula pubescens	7
Ash	Fraxinus excelsior	2
Hawthorn	Crataegus monogyna	1
Field		
Dog's Mercury	Mercurialis perennis	8
Enchanter's-Nightshade	Circaea lutetiana	5
Wood Avens	Geum urbanum	4
Herb-Robert	Geranium robertianum	3
Meadowsweet	Filipendula ulmaria	3
False Oat-Grass	Arrhenatherum elatius	2
Bramble	Rubus fruticosus agg.	2
Male-Fern	Dryopteris filix-mas	5
Cleavers	Galium aparine	1
Common Tamarisk Moss	Thuidium tamariscinum	4
Broad-Leaved Helleborine	Epipactis helleborine	1

Table 132: Site 49, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	50x50	4x4
Grid Reference (X, Y)	404631, 514162	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Pedunculate Oak	Quercus robur	4
Wych Elm	Ulmus glabra	1
Alder	Alnus glutinosa	4
Ash	Fraxinus excelsior	4
Hornbeam	Carpinus betulus	3

Downy Birch	Betula pubescens	2
Shrubs		
Downy Birch	Betula pubescens	7
Hawthorn	Crataegus monogyna	3
Hornbeam	Carpinus betulus	2
Ash	Fraxinus excelsior	2
Field		
Dog's Mercury	Mercurialis perennis	7
Tufted Hair-Grass	Deschampsia cespitosa	4
Wood Avens	Geum urbanum	5
Enchanter's-Nightshade	Circaea lutetiana	3
Bramble	Rubus fruticosus agg.	4
Hairy-Brome	Bromopsis ramosa	4
Creeping Buttercup	Ranunculus repens	3
Common Feather-Moss	Kindbergia praelonga	5
Male-Fern	Dryopteris filix-mas	2
Meadowsweet	Filipendula ulmaria	2

Table 133: Site 49, Habitat 1: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	50x50	4x4
Grid Reference (X, Y)		
404649, 514234		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Pedunculate Oak	Quercus robur	5
Downy Birch	Betula pubescens	4
Ash	Fraxinus excelsior	1

Shrubs		
Hawthorn	<i>Crataegus monogyna</i>	5
Wych Elm	<i>Ulmus glabra</i>	1
Ash	<i>Fraxinus excelsior</i>	5
Guelder-Rose	<i>Viburnum opulus</i>	1
Field		
Meadowsweet	<i>Filipendula ulmaria</i>	9
False Oat-Grass	<i>Arrhenatherum elatius</i>	4
Bramble	<i>Rubus fruticosus</i> agg.	3
Marsh Thistle	<i>Cirsium palustre</i>	1
Soft-Rush	<i>Juncus effusus</i>	1
Hairy-Brome	<i>Bromopsis ramosa</i>	2
Common Tamarisk Moss	<i>Thuidium tamariscinum</i>	4
Broad-Leaved Willowherb	<i>Epilobium montanum</i>	1
Enchanter's-Nightshade	<i>Circaea lutetiana</i>	2
Cleavers	<i>Galium aparine</i>	3
Ash Sapling	<i>Fraxinus excelsior</i>	1
Wood Avens	<i>Geum urbanum</i>	2

Table 134: Site 49, Habitat 1: Quadrat 5

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
5	50x50	4x4
Grid Reference (X, Y)		404705, 514197
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Hornbeam	<i>Carpinus betulus</i>	3
Downy Birch	<i>Betula pubescens</i>	4

Pedunculate Oak	Quercus robur	5
Alder	Alnus glutinosa	2
Ash	Fraxinus excelsior	1
Shrubs		
Downy Birch	Betula pubescens	7
Ash	Fraxinus excelsior	3
Dog-Rose	Rosa canina	1
Goat Willow	Salix caprea	1
Hawthorn	Crataegus monogyna	1
Field		
Dog's Mercury	Mercurialis perennis	4
Enchanter's-Nightshade	Circaea lutetiana	5
Wood Avens	Geum urbanum	7
Herb-Robert	Geranium robertianum	3
Meadowsweet	Filipendula ulmaria	4
Hairy-Brome	Bromopsis ramosa	2
Broad Buckler-Fern	Dryopteris dilatata	2
Male-Fern	Dryopteris filix-mas	1
Common Tamarisk Moss	Thuidium tamariscinum	4

Table 135: Site 49, Habitat 2: Survey Details

Site Name	49
Date	13/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Marginal vegetation around manmade ponds - mostly dominated by ruderal herbs.

Management Notes	Mown pathways through central area.
Condition Notes	Dominated by ruderal herbs with few strict emergent or aquatic species present. High soft rush cover
Slope	0
Aspect	0
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	None
Peat Depth (if present, cm)	N/A
Broad Habitat	Standing order
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.75
Field Cover (%)	90
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	None
Thatch	None
Bare Ground	<5
Other Notes	Pond margins of similar composition - detailed species list compiled
BNG Habitat	f2d - Aquatic marginal vegetation
BNG Condition	Poor
NVC Community	OV26a - Epilobium hirsutum community, Juncus effusus-Ranunculus repens sub-community

Table 136: Site 49, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)		404677, 514287
Species List		
Common Name	Scientific Name	Domin Scale
Common Nettle	<i>Urtica dioica</i>	7
Cleavers	<i>Galium aparine</i>	4
Soft-Rush	<i>Juncus effusus</i>	7
Brooklime	<i>Veronica beccabunga</i>	5
Broad-Leaved Dock	<i>Rumex obtusifolius</i>	5
Creeping Thistle	<i>Cirsium arvense</i>	4
Scentless Mayweed	<i>Tripleurospermum inodorum</i>	3
American Willowherb	<i>Epilobium ciliatum</i>	3
Square-Stalked St John's-Wort	<i>Hypericum tetrapterum</i>	3
Common Ragwort	<i>Senecio jacobaea</i>	3
Meadowsweet	<i>Filipendula ulmaria</i>	3
Creeping Buttercup	<i>Ranunculus repens</i>	4
Silverweed	<i>Potentilla anserina</i>	3
Greater Plantain	<i>Plantago major</i>	4

Table 137: Site 50, Habitat 1: Survey Details

Site Name	50
Date	13/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid

Site/Vegetation Description	Grazing pasture bordering a woodland to the northwest with the A66 towards the south. Hedge lines intact/defunct hawthorn, with very occasional semi-mature trees and two large mature ash. A semi-mature ash and crab apple in field. A narrow strip of vegetation indicative of damper conditions including hard rush, sharp flowered rush and marsh thistle runs in a narrow strip following a dry watercourse across the site. However, this damper area of habitat is limited and does not warrant separate classification.
Management Notes	Grazed
Condition Notes	Species poor
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.2
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	<5%
Other Notes	

BNG Habitat	Other neutral grassland g3c
BNG Condition	Poor
NVC Community	MG6b

Table 138: Site 50, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	404617, 513908	
Species List		
Common Name	Scientific Name	Domin Scale
Yorkshire-fog	Holcus lanatus	5
Perennial rye-grass	Lolium perenne	5
Sweet vernal-grass	Anthoxanthum odoratum	4
Red fescue	Festuca rubra	5
Creeping thistle	Cirsium arvense	2
Common nettle	Urtica dioica	2

Table 139: Site 50, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	404555, 513913	
Species List		
Common Name	Scientific Name	Domin Scale
Perennial rye-grass	Lolium perenne	6
Yorkshire-fog	Holcus lanatus	5
Sweet vernal-grass	Anthoxanthum odoratum	4
Common bent	Agrostis capillaris	4

Red fescue	Festuca rubra	4
Soft-rush	Juncus effusus	2
Hard rush	Juncus inflexus	2

Table 140: Site 50, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	404562, 513858	
Species List		
Common Name	Scientific Name	Domin Scale
Yorkshire-fog	Holcus lanatus	7
Meadow foxtail	Alopecurus pratensis	1
Sweet vernal-grass	Anthoxanthum odoratum	4
Perennial rye-grass	Lolium perenne	6
Creeping thistle	Cirsium arvense	1
Red fescue	Festuca rubra	4

Table 141: Site 51, Habitat 1: Survey Details

Site Name	51
Date	13/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Grass verge on steep well-drained bank, protected from grazing by wooden fence - appears to have been seeded with similar composition throughout, becoming dominated by rank grasses.

Management Notes	Likely to be mown occasionally, but protected from grazing.
Condition Notes	Even mid sward but some areas of bare earth, and high abundance of undesirable species - abundance of ryegrass but less than 25% overall.
Slope	30
Aspect	SE
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	None
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	45
Field Cover (%)	85
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	None
Thatch	Scattered
Bare Ground	15
Other Notes	Species composition similar - 4 quadrats undertaken
BNG Habitat	g3c - Other neutral grassland
BNG Condition	Moderate
NVC Community	MG6a - Lolium perenne-Cynosurus cristatus grassland, typical sub-community

Table 142: Site 51, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)		399321, 513770
Species List		
Common Name	Scientific Name	Domin Scale
Crested Dog's-Tail	Cynosurus cristatus	5
Perennial Rye-Grass	Lolium perenne	8
Creeping Thistle	Cirsium arvense	1
Black Bent	Agrostis gigantea	5
Creeping Buttercup	Ranunculus repens	4

Table 143: Site 51, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)		399303, 513769
Species List		
Common Name	Scientific Name	Domin Scale
Crested Dog's-Tail	Cynosurus cristatus	7
Black Bent	Agrostis gigantea	5
Creeping Thistle	Cirsium arvense	4
Creeping Buttercup	Ranunculus repens	3
Germander Speedwell	Veronica chamaedrys	3
Common Nettle	Urtica dioica	1
Yorkshire-Fog	Holcus lanatus	3
Perennial Rye-Grass	Lolium perenne	4
Broad-Leaved Dock	Rumex obtusifolius	1
Bare ground & Leaf Litter	#N/A	4

Table 144: Site 51, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	399285, 513747	
Species List		
Common Name	Scientific Name	Domin Scale
Cock's-Foot	Dactylis glomerata	5
Perennial Rye-Grass	Lolium perenne	4
Meadow Foxtail	Alopecurus pratensis	5
Crested Dog's-Tail	Cynosurus cristatus	4
Black Bent	Agrostis gigantea	3
Red Fescue	Festuca rubra	5
Creeping Thistle	Cirsium arvense	3
Creeping Buttercup	Ranunculus repens	2

Table 145: Site 51, Habitat 1: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	2x2	2x2
Grid Reference (X, Y)	399283, 513736	
Species List		
Common Name	Scientific Name	Domin Scale
Crested Dog's-Tail	Cynosurus cristatus	6
Yorkshire-Fog	Holcus lanatus	5
Red Fescue	Festuca rubra	7
Creeping Thistle	Cirsium arvense	4
Meadow Buttercup	Ranunculus acris	2
Creeping Buttercup	Ranunculus repens	3
Selfheal	Prunella vulgaris	2
Black Bent	Agrostis gigantea	4
White Clover	Trifolium repens	2

Table 146: Site 52, Habitat 1: Survey Details

Site Name	52
Date	13/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Sheep and cattle grazed pasture - dominated by perennial ryegrass with scattered patches of marshy rush dominant areas where ground has been poached. 2 NVC habitats, but scattered within each other so cannot be mapped.
Management Notes	Sheep/cattle pasture but fairly low intensity and tussocky.
Condition Notes	Agricultural grassland dominated by ryegrass - poor.
Slope	0
Aspect	0
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	None
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A

Field Layer height (mean, m)	0.25
Field Cover (%)	85
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	None
Thatch	None
Bare Ground	15
Other Notes	2 habitat types scattered within each other - 3 quadrats per habitat
BNG Habitat	g4 - Modified grassland
BNG Condition	Poor
NVC Community	MG7 - Lolium perenne leys and related grasslands; sub-community not distinctive

Table 147: Site 52, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	399268, 513899	
Species List		
Common Name	Scientific Name	Domin Scale
Perennial Rye-Grass	Lolium perenne	5
Yorkshire-Fog	Holcus lanatus	5
Crested Dog's-Tail	Cynosurus cristatus	5
Tufted Hair-Grass	Deschampsia cespitosa	4
Compact Rush	Juncus conglomeratus	1
Creeping Buttercup	Ranunculus repens	3
White Clover	Trifolium repens	3
Broad-Leaved Dock	Rumex obtusifolius	1

Table 148: Site 52, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)		
399300, 513910		
Species List		
Common Name	Scientific Name	Domin Scale
Perennial Rye-Grass	<i>Lolium perenne</i>	8
Yorkshire-Fog	<i>Holcus lanatus</i>	4
White Clover	<i>Trifolium repens</i>	3
Broad-Leaved Dock	<i>Rumex obtusifolius</i>	1

Table 149: Site 52, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)		
399350, 513879		
Species List		
Common Name	Scientific Name	Domin Scale
Perennial Rye-Grass	<i>Lolium perenne</i>	8
Yorkshire-Fog	<i>Holcus lanatus</i>	5
Creeping Buttercup	<i>Ranunculus repens</i>	2
Creeping Thistle	<i>Cirsium arvense</i>	1
Common Bent	<i>Agrostis capillaris</i>	4

Table 150: Site 52, Habitat 2: Survey Details

Site Name	52
Date	13/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht

Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Sheep and cattle grazed pasture - dominated by perennial ryegrass with scattered patches of marshy rush dominant areas where ground has been poached. 2 NVC habitats, but scattered within each other so cannot be mapped.
Management Notes	Sheep/cattle pasture but fairly low intensity and tussocky.
Condition Notes	Agricultural grassland dominated by ryegrass - poor.
Slope	0
Aspect	0
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	None
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.25
Field Cover (%)	85
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	None

Thatch	None
Bare Ground	15
Other Notes	2 habitat types scattered within each other - 3 quadrats per habitat
BNG Habitat	g4 - Modified grassland
BNG Condition	Poor
NVC Community	MG10a - Holcus lanatus-Juncus effusus rush-pasture, typical sub-community

Table 151: Site 52, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	399279, 513898	
Species List		
Common Name	Scientific Name	Domin Scale
Compact Rush	Juncus conglomeratus	8
Common Nettle	Urtica dioica	3
Yorkshire-Fog	Holcus lanatus	4
Brooklime	Veronica beccabunga	2
Wavy Bitter-Cress	Cardamine flexuosa	1
Broad-Leaved Willowherb	Epilobium montanum	1
Rough Meadow-Grass	Poa trivialis	1

Table 152: Site 52, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	399341, 513911	

Species List		
Common Name	Scientific Name	Domin Scale
Soft-Rush	<i>Juncus effusus</i>	6
Compact Rush	<i>Juncus conglomeratus</i>	7
Creeping Buttercup	<i>Ranunculus repens</i>	4
Brooklime	<i>Veronica beccabunga</i>	3
Cock's-Foot	<i>Dactylis glomerata</i>	4
Yorkshire-Fog	<i>Holcus lanatus</i>	4

Table 153: Site 52, Habitat 2: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	399368, 513888	
Species List		
Common Name	Scientific Name	Domin Scale
Soft-Rush	<i>Juncus effusus</i>	5
Compact Rush	<i>Juncus conglomeratus</i>	5
Yorkshire-Fog	<i>Holcus lanatus</i>	5
Common Nettle	<i>Urtica dioica</i>	4
Creeping Buttercup	<i>Ranunculus repens</i>	3
Fen Bedstraw	<i>Galium uliginosum</i>	2
Broad-Leaved Dock	<i>Rumex obtusifolius</i>	1
Cuckooflower	<i>Cardamine pratensis</i>	1
Tufted Hair-Grass	<i>Deschampsia cespitosa</i>	3

Table 154: Site 53, Habitat 1: Survey Details

Site Name	53
Date	13/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht

Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Mixed mature ash woodland with dog mercury frequent in ground flora - fairly open canopy with open areas dominated by bracken.
Management Notes	Public footpath running through central area.
Condition Notes	Mature trees with ash dieback evident - little fallen dead wood and few signs of regeneration.
Slope	30
Aspect	S
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	None
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	50
Understory/Shrub Layer height (m)	4
Understorey Cover (%)	20
Field Layer height (mean, m)	0.5
Field Cover (%)	80
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	5
Leaf Litter	<5
Thatch	0

Bare Ground	0
Other Notes	Steep banks restricting access - Detailed species list compiled
BNG Habitat	w1b - Upland mixed ashwoods - Priority Habitat
BNG Condition	Moderate
NVC Community	W9a - Fraxinus excelsior-Sorbus aucuparia-Mercurialis perennis woodland, typical sub-community

Table 155: Site 53, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	399086, 513303	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sycamore	Acer pseudoplatanus	5
Beech	Fagus sylvatica	4
Scots Pine	Pinus sylvestris	4
Ash	Fraxinus excelsior	5
European Larch	Larix decidua	3
Rowan	Sorbus aucuparia	3
Wych Elm	Ulmus glabra	3
Shrubs		
Beech	Fagus sylvatica	3
Elder	Sambucus nigra	5
Blackthorn	Prunus spinosa	4
Gooseberry	Ribes uva-crispa	3
Raspberry	Rubus idaeus	3
Field		
Dog's Mercury	Mercurialis perennis	5
Common Nettle	Urtica dioica	5

Creeping Buttercup	Ranunculus repens	5
Lesser Burdock	Arctium minus	4
Creeping Thistle	Cirsium arvense	4
Wild Garlic	Allium ursinum	4
Wood Avens	Geum urbanum	3
False Oat-Grass	Arrhenatherum elatius	3
Bracken	Pteridium aquilinum	7
Male-Fern	Dryopteris filix-mas	3
Meadowsweet	Filipendula ulmaria	3
Red Campion	Silene dioica	4
Bearded Couch	Elymus caninus	3
Herb-Robert	Geranium robertianum	3
Rough Meadow-Grass	Poa trivialis	4
Cock's-Foot	Dactylis glomerata	3
Wood Dock	Rumex sanguineus	3
Perforate St John's-Wort	Hypericum perforatum	3
Hogweed	Heracleum sphondylium	4

Table 156: Site 53, Habitat 2: Survey Details

Site Name	53
Date	13/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Island within woodland dominated by sessile oak, sycamore, Scots pine with wood rush understorey - between main river channel and side channel.

Management Notes	None apparent.
Condition Notes	Trees all similar age, no understorey and few signs of dead wood or regeneration.
Slope	0
Aspect	0
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	None
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	70
Understorey/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.4
Field Cover (%)	90
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	None
Thatch	None
Bare Ground	10
Other Notes	Small area - detailed species list compiled
BNG Habitat	w1f7 - Other lowland mixed deciduous woodland - Priority Habitat
BNG Condition	Moderate

NVC Community	W11 - Quercus petraea-Betula pubescens-Oxalis acetosella woodland; subcommunity not distinctive
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Table 157: Site 53, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)		399062, 513267
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sessile Oak	Quercus petraea	4
Sycamore	Acer pseudoplatanus	4
Scots Pine	Pinus sylvestris	4
Beech	Fagus sylvatica	3
European Larch	Larix decidua	3
Wych Elm	Ulmus glabra	3
Shrubs		
Hawthorn	Crataegus monogyna	3
Grey Willow	Salix cinerea	3
Field		
Great Wood-Rush	Luzula sylvatica	8
Melancholy Thistle	Cirsium heterophyllum	4
Bramble	Rubus fruticosus agg.	4
Wood Anemone	Anemone nemorosa	4
Butterbur	Petasites hybridus	4
Wild Garlic	Allium ursinum	3
Male-Fern	Dryopteris filix-mas	3
False Oat-Grass	Arrhenatherum elatius	3
Barren Brome	Anisantha sterilis	3

Pignut	Conopodium majus	4
Bush Vetch	Vicia sepium	3
Dog's Mercury	Mercurialis perennis	3

Table 158: Site 53, Habitat 3: Survey Details

Site Name	53
Date	13/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Mature planted beech woodland extending from farmyard to steep banks of river - sparse understorey with field layer dominated by woodland indicator species.
Management Notes	Some evidence of felling present.
Condition Notes	Trees all similar age, no signs of regeneration and limited deadwood.
Slope	45
Aspect	Multiple
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	85

Understory/Shrub Layer height (m)	3
Understorey Cover (%)	<5
Field Layer height (mean, m)	0.2
Field Cover (%)	40
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	<5
Leaf Litter	<5
Thatch	None
Bare Ground	55
Other Notes	Uniform habitat - detailed species list compiled
BNG Habitat	w1g7 - Other broadleaved woodland types
BNG Condition	Moderate
NVC Community	No recognisable NVC community due to planted beech composition – ground flora indicates historic W9 type woodland

Table 159: Site 53, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	399295, 513217	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Beech	Fagus sylvatica	8
Sycamore	Acer pseudoplatanus	7
European Larch	Larix decidua	3
Shrubs		
Elder	Sambucus nigra	3
Field		
Wild Garlic	Allium ursinum	4

Bluebell	Hyacinthoides non-scripta	4
Dog's Mercury	Mercurialis perennis	3
Common Nettle	Urtica dioica	3
Ground-Ivy	Glechoma hederacea	3
Rough Meadow-Grass	Poa trivialis	4
Smooth Meadow-Grass	Poa pratensis	4
Rough-Stalked Feather-Moss	Brachythecium rutabulum	5
Wood Avens	Geum urbanum	3
Great Wood-Rush	Luzula sylvatica	4
Male-Fern	Dryopteris filix-mas	4

Table 160: Site 54, Habitat 1: Survey Details

Site Name	Site 54
Date	13/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	The site is acid grassland of a single type. There are more or less extensive, dense, stands of bracken towards the west. There is also a small rocky outcrop in the west, with the site's only tree, a single semi-mature ash, alongside a single stunted hawthorn. Heavily rabbit grazed in the west.
Management Notes	Sheep grazed.
Condition Notes	Heavily grazed and relatively high incidence of undesirable spear thistle and creeping thistle and bracken, in places. Relatively species poor.
Slope	Flat towards the north; gently sloping towards the south.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A

Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.15
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	30%
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5%
Other Notes	
BNG Habitat	Other upland acid grassland g1b6
BNG Condition	Poor
NVC Community	U5a

Table 161: Site 54, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	398324, 513685	
Species List		

Common Name	Scientific Name	Domin Scale
Common Bent	<i>Agrostis capillaris</i>	6
Mat-Grass	<i>Nardus stricta</i>	5
Sheep's-Fescue	<i>Festuca ovina</i>	6
Heath Rush	<i>Juncus squarrosus</i>	3
Yorkshire-Fog	<i>Holcus lanatus</i>	1
Heath Bedstraw	<i>Galium saxatile</i>	4
Springy Turf-Moss	<i>Rhytidiadelphus squarrosus</i>	4

Table 162: Site 54, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	398393, 513765	
Species List		
Common Name	Scientific Name	Domin Scale
Common Bent	<i>Agrostis capillaris</i>	4
Brown Bent	<i>Agrostis vinealis</i>	5
Mat-Grass	<i>Nardus stricta</i>	6
Sheep's-Fescue	<i>Festuca ovina</i>	6
Sweet Vernal-Grass	<i>Anthoxanthum odoratum</i>	4
Tormentil	<i>Potentilla erecta</i>	3
Bilberry	<i>Vaccinium myrtillus</i>	1
Heath Bedstraw	<i>Galium saxatile</i>	4
Springy Turf Moss	<i>Rhytidiadelphus squarrosus</i>	5
Neat Feather-Moss	<i>Pseudoscleropodium purum</i>	4
Heath Rush	<i>Juncus squarrosus</i>	3

Table 163: Site 54, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
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3	2x2	2x2
Grid Reference (X, Y)	398507, 513810	
Species List		
Common Name	Scientific Name	Domin Scale
Heath Plait-Moss	Hypnum jutlandicum	4
Springy Turf Moss	Rhytidiadelphus squarrosus	4
Neat Feather-Moss	Pseudoscleropodium purum	3
Waved Silk-Moss	Plagiothecium undulatum	2
Brown Bent	Agrostis vinealis	6
Mat-Grass	Nardus stricta	5
Sheep's-Fescue	Festuca ovina	6
Heath Bedstraw	Galium saxatile	4
Tormentil	Potentilla erecta	2
Heath Rush	Juncus squarrosus	3
Bilberry	Vaccinium myrtillus	3

Table 164: Site 55, Habitat 1: Survey Details

Site Name	55
Date	08/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Extensive area in centre of field dominated by greater pond sedge.
Management Notes	Sheep grazing in field, but not intensely.

Condition Notes	Even tall sward- abundance of sub-optimal species - no bare ground or scattered scrub. Not permanently inundated
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Fen/Mire
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	None
Thatch	Minor
Bare Ground	<5
Other Notes	Uniform small area - single quadrat only
BNG Habitat	f2a - Lowland fens - Priority Habitat
BNG Condition	Moderate
NVC Community	S6 - Carex riparia swamp

Table 165: Site 55, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
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1	Whole area	Whole area
Grid Reference (X, Y)	376614, 515011	
Species List		
Common Name	Scientific Name	Domin Scale
Tufted Hair-Grass	Deschampsia cespitosa	3
Greater Pond-Sedge	Carex riparia	9
Creeping Thistle	Cirsium arvense	4
Common Nettle	Urtica dioica	4
Cleavers	Galium aparine	3
Meadow Vetchling	Lathyrus pratensis	2
False Oat-Grass	Arrhenatherum elatius	3
Oval Sedge	Carex leporina	1

Table 166: Site 55, Habitat 2: Survey Details

Site Name	55
Date	08/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Low intensity sheep grazed grassland - tall and short sward - western side dominated by hydrophilic species, potential separate NVC community - rare scattered scrub.
Management Notes	Sheep grazed.
Condition Notes	Abundance of sub-optimal species present but limited bare ground and scattered scrub.

Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer hieght (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1
Field Cover (%)	98
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	5
Leaf Litter	0
Thatch	Minor
Bare Ground	2
Other Notes	
BNG Habitat	g3c - Other neutral grassland
BNG Condition	Moderate
NVC Community	MG9b - Holcus lanatus-Deschampsia cespitosa grassland, Arrhenatherum elatius sub-community

Table 167: Site 55, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	376730, 514998	
Species List		

Common Name	Scientific Name	Domin Scale
Yorkshire-Fog	Holcus lanatus	7
False Oat-Grass	Arrhenatherum elatius	4
Sweet Vernal-Grass	Anthoxanthum odoratum	4
Red Fescue	Festuca rubra	5
Creeping Thistle	Cirsium arvense	3
Common Bent	Agrostis capillaris	4
White Clover	Trifolium repens	4
Pignut	Conopodium majus	2
Common Mouse-Ear	Cerastium fontanum	3
Lesser Stitchwort	Stellaria graminea	3
Springy Turf-Moss	Rhytidiadelphus squarrosus	3
Germander Speedwell	Veronica chamaedrys	3
Cock's-Foot	Dactylis glomerata	2
Creeping Buttercup	Ranunculus repens	1
Yarrow	Achillea millefolium	1
Field Wood-Rush	Luzula campestris	1

Table 168: Site 55, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	376666, 515001	
Species List		
Common Name	Scientific Name	Domin Scale
Tufted Hair-Grass	Deschampsia cespitosa	5
Sweet Vernal-Grass	Anthoxanthum odoratum	5
Yorkshire-Fog	Holcus lanatus	4
Common Bent	Agrostis capillaris	3
White Clover	Trifolium repens	5
Creeping Thistle	Cirsium arvense	2

Lesser Stitchwort	Stellaria graminea	3
Field Wood-Rush	Luzula campestris	2
Germander Speedwell	Veronica chamaedrys	3
Yarrow	Achillea millefolium	1
Springy Turf-Moss	Rhytidiadelphus squarrosus	3
Creeping Buttercup	Ranunculus repens	2
Red Fescue	Festuca rubra	4

Table 169: Site 55, Habitat 2: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)		
376578, 515004		
Species List		
Common Name	Scientific Name	Domin Scale
Tufted Hair-Grass	Deschampsia cespitosa	6
False Oat-Grass	Arrhenatherum elatius	5
Yorkshire-Fog	Holcus lanatus	5
Creeping Thistle	Cirsium arvense	3
Sharp-Flowered Rush	Juncus acutiflorus	5
Fen Bedstraw	Galium uliginosum	2
Common Sorrel	Rumex acetosa	3
Meadow Vetchling	Lathyrus pratensis	1
Rough Meadow-Grass	Poa trivialis	2

Table 170: Site 55, Habitat 2: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	2x2	2x2
Grid Reference (X, Y)		
376566, 515015		
Species List		

Common Name	Scientific Name	Domin Scale
Greater Pond-Sedge	Carex riparia	7
False Oat-Grass	Arrhenatherum elatius	5
Tufted Hair-Grass	Deschampsia cespitosa	4
Creeping Thistle	Cirsium arvense	3
Yorkshire-Fog	Holcus lanatus	4
Sharp-Flowered Rush	Juncus acutiflorus	4
Common Sorrel	Rumex acetosa	3
Meadowsweet	Filipendula ulmaria	3
Fen Bedstraw	Galium uliginosum	1
Sweet Vernal-Grass	Anthoxanthum odoratum	1
Creeping Bent	Agrostis stolonifera	2

Table 171: Site 55, Habitat 3: Survey Details

Site Name	55
Date	08/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Riparian margin of brook running between fields - dominated by meadowsweet, false oat-grass and common nettle.
Management Notes	Protected from sheep grazing by barbed wire fence.
Condition Notes	Uniform tall sward - absence of bare ground and scrub but high presence of sub-optimal species. Not permanently submerged/inundated.

Slope	20
Aspect	Multiple
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	None
Peat Depth (if present, cm)	N/A
Broad Habitat	Marginal Vegetation
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1.2
Field Cover (%)	75
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	0
Thatch	0
Bare Ground	2
Other Notes	Margin uniformly similar, detail species list compiled only.
BNG Habitat	f2d - Aquatic marginal vegetation
BNG Condition	Moderate
NVC Community	OV26c - Epilobium hirsutum community, Filipendula ulmaria-Angelica sylvestris sub-community

Table 172: Site 55, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	376737, 515043	

Species List		
Common Name	Scientific Name	Domin Scale
Meadowsweet	Filipendula ulmaria	8
Common Valerian	Valeriana officinalis	5
Reed Canary-Grass	Phalaris arundinacea	3
False Oat-Grass	Arrhenatherum elatius	7
Common Nettle	Urtica dioica	7
Crosswort	Cruciata laevipes	5
Creeping Thistle	Cirsium arvense	5
Meadow Buttercup	Ranunculus acris	3
Cleavers	Galium aparine	4
Hedge Woundwort	Stachys sylvatica	3
Tufted Hair-Grass	Deschampsia cespitosa	3
Nipplewort	Lapsana communis	3
Meadow Crane's-Bill	Geranium pratense	3
Great Willowherb	Epilobium hirsutum	3
Lesser Stitchwort	Stellaria graminea	3
Broad-Leaved Dock	Rumex obtusifolius	3
Hedge Bedstraw	Galium mollugo	3
Silverweed	Potentilla anserina	4
Field Forget-Me-Not	Myosotis arvensis	3
Gorse	Ulex europaeus	3

Table 173: Site 55, Habitat 4: Survey Details

Site Name	55
Date	08/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid

Site/Vegetation Description	Extensive area in centre of field dominated by pond sedge.
Management Notes	Sheep grazing in field but not intensely.
Condition Notes	Even tall sward - abundance of sub-optimal species but no bare ground or scattered scrub. Not permanently inundated
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	None
Peat Depth (if present, cm)	N/A
Broad Habitat	Marshy grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	None
Thatch	Minor
Bare Ground	<5

Other Notes	Uniform area - detailed species list compiled
BNG Habitat	f2a - Lowland fens - Priority Habitat
BNG Condition	Moderate
NVC Community	S6 - Carex riparia swamp

Table 174: Site 55, Habitat 4: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	376710, 515074	
Species List		
Common Name	Scientific Name	Domin Scale
Tufted Hair-Grass	Deschampsia cespitosa	3
Greater Pond-Sedge	Carex riparia	9
Creeping Thistle	Cirsium arvense	4
Common Nettle	Urtica dioica	4
Cleavers	Galium aparine	3
Meadow Vetchling	Lathyrus pratensis	2
False Oat-Grass	Arrhenatherum elatius	3
Oval Sedge	Carex leporina	1
Ragged-Robin	Lychnis flos-cuculi	1

Table 175: Site 55, Habitat 5: Survey Details

Site Name	55
Date	08/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid

Site/Vegetation Description	Small isolated patch of rush dominated grassland on side of bank. sodden peaty ground with scattered gorse
Management Notes	In sheep grazed field but appears undisturbed
Condition Notes	Some areas of bare ground, scattered scrub, even tall sward, with few suboptimal sp. present. Not permanently inundated
Slope	0
Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	Yes
Peat Depth (if present, cm)	5
Broad Habitat	Mire
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.4
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	<5
Leaf Litter	N/A
Thatch	N/A
Bare Ground	<5

Other Notes	Small area - single quadrat undertaken
BNG Habitat	g3c - Other neutral grassland
BNG Condition	Moderate
NVC Community	M13 - Schoenus nigricans-Juncus subnodulosus mire - sub-community not distinctive

Table 176: Site 55, Habitat 5: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	376704, 515092	
Species List		
Common Name	Scientific Name	Domin Scale
Black Bog-Rush	Schoenus nigricans	9
Perforate St Johns Wort	Hypericum perforatum	1
Tormentil	Potentilla erecta	3
Marsh Woundwort	Stachys palustris	1
Fen Bedstraw	Galium uliginosum	3
Creeping Thistle	Cirsium arvense	1
Common Vetch	Vicia sativa	1
Yorkshire-Fog	Holcus lanatus	2
Sharp-Flowered Rush	Juncus acutiflorus	2
Pointed Spear-Moss	Calliergonella cuspidata	2

Table 177: Site 55, Habitat 6: Survey Details

Site Name	55
Date	08/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid

Site/Vegetation Description	Tussocky sheep grazed grassland on seasonally wet soils - intertwined with hydrophilic species, but similar composition throughout - less dominated by hydrophilic species on upper bank, with areas of bare ground.
Management Notes	Sheep grazed.
Condition Notes	Mixed sward with absence of significant scrub and bare ground - presence of sub-optimal species.
Slope	10
Aspect	S
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	None
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.75
Field Cover (%)	95
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	0
Thatch	Moderate
Bare Ground	5

Other Notes	Area of similar composition - 4 representative quadrats undertaken
BNG Habitat	g3c - Other neutral grassland
BNG Condition	Moderate
NVC Community	MG9b - Holcus lanatus-Deschampsia cespitosa grassland, Arrhenatherum elatius sub-community

Table 178: Site 55, Habitat 6: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	376715, 515111	
Species List		
Common Name	Scientific Name	Domin Scale
Field		
Yorkshire-Fog	Holcus lanatus	5
Sweet Vernal-Grass	Anthoxanthum odoratum	5
Creeping Thistle	Cirsium arvense	3
Marsh Pennywort	Hydrocotyle vulgaris	3
Fen Bedstraw	Galium uliginosum	2
Common Mouse-Ear	Cerastium fontanum	3
Sharp-Flowered Rush	Juncus acutiflorus	4
Red Fescue	Festuca rubra	5
False Oat-Grass	Arrhenatherum elatius	2

Table 179: Site 55, Habitat 6: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2

Grid Reference (X, Y)	376627, 515100	
Species List		
Common Name	Scientific Name	Domin Scale
Tufted Hair-Grass	Deschampsia cespitosa	2
Common Nettle	Urtica dioica	5
Soft-Rush	Juncus effusus	5
Rough Meadow-Grass	Poa trivialis	4
Common Bent	Agrostis capillaris	4
Sharp-Flowered Rush	Juncus acutiflorus	4
Creeping Thistle	Cirsium arvense	2
Yorkshire-Fog	Holcus lanatus	4
False Oat-Grass	Arrhenatherum elatius	2

Table 180: Site 55, Habitat 6: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	376627, 515056	
Species List		
Common Name	Scientific Name	Domin Scale
Yorkshire-Fog	Holcus lanatus	7
Tufted Hair-Grass	Deschampsia cespitosa	5
Creeping Thistle	Cirsium arvense	4
Creeping Buttercup	Ranunculus repens	2
Creeping Bent	Agrostis stolonifera	2
Common Bent	Agrostis capillaris	4
Crested Dog's-Tail	Cynosurus cristatus	2
Sweet Vernal-Grass	Anthoxanthum odoratum	3
White Clover	Trifolium repens	3
Sharp-Flowered Rush	Juncus acutiflorus	3

Table 181: Site 55, Habitat 6: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	2x2	2x2
Grid Reference (X, Y)	376752, 515045	
Species List		
Common Name	Scientific Name	Domin Scale
Sweet Vernal-Grass	Anthoxanthum odoratum	4
Yorkshire-Fog	Holcus lanatus	5
Tufted Hair-Grass	Deschampsia cespitosa	4
False Oat-Grass	Arrhenatherum elatius	5
Red Fescue	Festuca rubra	5
Common Bent	Agrostis capillaris	4
Germander Speedwell	Veronica chamaedrys	1
Creeping Thistle	Cirsium arvense	2
Common Sorrel	Rumex acetosa	1
Lesser Stitchwort	Stellaria graminea	1
Sharp-Flowered Rush	Juncus acutiflorus	1

Table 182: Site 55, Habitat 7: Survey Details

Site Name	55
Date	08/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Relatively intensely grazed pasture dominated by typical agricultural seed mix. Patchy mid to short sward with some small areas of bare ground.
Management Notes	Sheep grazed

Condition Notes	Absent of scrub and only minor areas of bare ground. mixed height sward but mostly <20 cm with scattered taller individuals. High abundance of ryegrass.
Slope	0
Aspect	Open
Soil pH	Unknown
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.15
Field Cover (%)	98
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	0
Thatch	0
Bare Ground	2%
Other Notes	NVC methodology not required for habitat classification. Detailed species list compiled.
BNG Habitat	g4 - Modified grassland
BNG Condition	Poor
NVC Community	MG6b - Lolium perenne-Cynosurus cristatus grassland, Anthoxanthum odoratum sub-community

Table 183: Site 55, Habitat 7: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area

Grid Reference (X, Y)		376721, 515198
Species List		
Common Name	Scientific Name	Domin Scale
Yorkshire-Fog	Holcus lanatus	7
Perennial Rye-Grass	Lolium perenne	5
Common Bent	Agrostis capillaris	5
White Clover	Trifolium repens	5
Germander Speedwell	Veronica chamaedrys	4
Sweet Vernal-Grass	Anthoxanthum odoratum	4
Dove's-Foot Crane's-Bill	Geranium molle	4
Creeping Buttercup	Ranunculus repens	3
Common Dandelion	Taraxacum officinale agg.	3
Common Mouse-Ear	Cerastium fontanum	4
Spear Thistle	Cirsium vulgare	3
False Oat-Grass	Arrhenatherum elatius	3

Table 184: Site 55, Habitat 8: Survey Details

Site Name	55
Date	08/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Rush pasture - mid-sward almost completely dominated by rushes where ground has been poached by cattle
Management Notes	Cattle grazed.

Condition Notes	Limited bare ground and shrubs - damaged ground from poaching evident.
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.4
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	<5
Leaf Litter	0
Thatch	0
Bare Ground	2
Other Notes	Small area - single quadrat only
BNG Habitat	g3c8 - Holcus-Juncus neutral grassland
BNG Condition	Moderate
NVC Community	MG10a - Holcus lanatus-Juncus effusus rush-pasture, typical sub-community

Table 185: Site 55, Habitat 8: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
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1	2x2	2x2
Grid Reference (X, Y)	376803, 515088	
Species List		
Common Name	Scientific Name	Domin Scale
Hard Rush	Juncus inflexus	5
Soft-Rush	Juncus effusus	5
Sharp-Flowered Rush	Juncus acutiflorus	4
Yorkshire-Fog	Holcus lanatus	3
Creeping Thistle	Cirsium arvense	2
Red Fescue	Festuca rubra	4
Crested Dog's-Tail	Cynosurus cristatus	2
Rough Meadow-Grass	Poa trivialis	3
Common Bent	Agrostis capillaris	2
Pointed Spear-Moss	Calliergonella cuspidata	5
Field Horsetail	Equisetum arvense	1
Common Yellow-Sedge	Carex demissa	1

Table 186: Site 55, Habitat 8: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	376806, 515056	
Species List		
Common Name	Scientific Name	Domin Scale
Soft-Rush	Juncus effusus	9
Pointed Spear-Moss	Calliergonella cuspidata	3
Rough Meadow-Grass	Poa trivialis	1

Table 187: Site 55, Habitat 9: Survey Details

Site Name	55
Date	08/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	sedge & rush pasture - short sward, heavily grazed
Management Notes	Cattle grazed.
Condition Notes	Limited bare ground and shrubs - damaged ground from poaching evident. Not permanently inundated and uniform grazed sward.
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.1
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	<5
Leaf Litter	0
Thatch	0
Bare Ground	2

Other Notes	Small area - single quadrat only
BNG Habitat	g3c - Other neutral grassland
BNG Condition	Moderate
NVC Community	M13a - Schoenus nigricans-Juncus subnodulosus mire, Festuca rubra-Juncus acutiflorus sub-community

Table 189: Site 55, Habitat 9: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	376811, 515068	
Species List		
Common Name	Scientific Name	Domin Scale
Sharp-Flowered Rush	Juncus acutiflorus	4
Common Yellow-Sedge	Carex demissa	5
Glaucous Sedge	Carex flacca	6
Kneiff's Hook-Moss	Drepanocladus aduncus	7
Lesser Spearwort	Ranunculus flammula	2
Creeping Bent	Agrostis stolonifera	2

Table 190: Site 55, Habitat 10: Survey Details

Site Name	55
Date	08/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Modified grass pasture with mixed sward

Management Notes	Cattle grazed.
Condition Notes	Limited bare ground and shrubs - damaged ground from poaching evident. High abundance of ryegrass.
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.2
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	<5
Leaf Litter	0
Thatch	0
Bare Ground	2
Other Notes	Small area- single quadrat only
BNG Habitat	g4 - Modified grassland
BNG Condition	Poor
NVC Community	MG6 - Lolium perenne-Cynosurus cristatus grassland - Sub-community not distinctive

Table 191: Site 55, Habitat 10: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	2x2	2x2
Grid Reference (X, Y)		376810, 515026
Species List		
Common Name	Scientific Name	Domin Scale
Yorkshire-Fog	Holcus lanatus	7
Perennial Rye-Grass	Lolium perenne	7
Common Mouse-Ear	Cerastium fontanum	3
Rough Meadow-Grass	Poa trivialis	2
Creeping Thistle	Cirsium arvense	1

Table 192: Site 55, Habitat 11: Survey Details

Site Name	55
Date	08/07/2022
Surveyors	Paul Wolstenholme & Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Fenced off riparian margin of drainage ditch running along field into brook.
Management Notes	Protected from grazing by fencing
Condition Notes	Absence of bare ground. tall sward uniform. presence of scattered scrub with high abundance of undesirable species
Slope	0
Aspect	Open
Soil pH	Unknown

Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1
Field Cover (%)	95
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	0
Thatch	minor
Bare Ground	0
Other Notes	Single species list compiled for habitat.
BNG Habitat	g3c5 - Arrhenatherum neutral grassland
BNG Condition	Moderate
NVC Community	MG1c - Arrhenatherum elatius grassland, Filipendula ulmaria sub-community

Table 193: Site 55, Habitat 11: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	376797, 515031	
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	Arrhenatherum elatius	7
Common Bent	Agrostis capillaris	4
Yorkshire-Fog	Holcus lanatus	5

Common Nettle	<i>Urtica dioica</i>	5
Foxglove	<i>Digitalis purpurea</i>	3
Creeping Thistle	<i>Cirsium arvense</i>	4
Cleavers	<i>Galium aparine</i>	4
Crosswort	<i>Cruciata laevipes</i>	4
Meadowsweet	<i>Filipendula ulmaria</i>	5
Compact Rush	<i>Juncus conglomeratus</i>	4
Broad-Leaved Dock	<i>Rumex obtusifolius</i>	3
Blackthorn	<i>Prunus spinosa</i>	3
Great Willowherb	<i>Epilobium hirsutum</i>	3
Elder	<i>Sambucus nigra</i>	3
Meadow Foxtail	<i>Alopecurus pratensis</i>	3
Tufted Hair-Grass	<i>Deschampsia cespitosa</i>	3
Soft-Rush	<i>Juncus effusus</i>	3
Compact Rush	<i>Juncus conglomeratus</i>	3
Creeping Buttercup	<i>Ranunculus repens</i>	3
Common Valerian	<i>Valeriana officinalis</i>	4
Hard Rush	<i>Juncus inflexus</i>	3
Tufted Vetch	<i>Vicia cracca</i>	4
Greater Bird's-Foot-Trefoil	<i>Lotus pedunculatus</i>	3
Bluebell	<i>Hyacinthoides non-scripta</i>	3
Ragged-Robin	<i>Lychnis flos-cuculi</i>	3
Hedge Bedstraw	<i>Galium mollugo</i>	3
Common Knapweed	<i>Centaurea nigra</i>	4
Meadow Buttercup	<i>Ranunculus acris</i>	3
Meadow Vetchling	<i>Lathyrus pratensis</i>	3
Tormentil	<i>Potentilla erecta</i>	3
Field Horsetail	<i>Equisetum arvense</i>	3
Bramble	<i>Rubus fruticosus</i> agg.	3
Marsh Woundwort	<i>Stachys palustris</i>	3

Yellow Iris	Iris pseudacorus	4
Greater Stitchwort	Stellaria holostea	3
Marsh Thistle	Cirsium palustre	3

Table 194: Site 57, Habitat 1: Survey Details

Site Name	Site 57 Habitat 1
Date	07/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Ditch approximately 1.5 m wide running across field, with clear, slowly flowing water. Completely vegetated. These notes refer to emergent vegetation only because we couldn't enter the ditch to search carefully for floating or submerged aquatic vegetation (if such vegetation was present it is likely to have been minimal because of shading from the emergents).
Management Notes	No current management apparent.
Condition	Moderate. Good species diversity. Undamaged by poaching or grazing. But sub-merged/floating aquatics not prominent (absent?)
Slope	Flat
Aspect	
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	Probably not.
Peat Depth (if present, cm)	N/A
Broad Habitat	Wetland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A

Field Layer height (mean, m)	N/A
Field Cover (%)	N/A
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	N/A
Thatch	N/A
Bare Ground	N/A
Other Notes	Due to time restrictions on military land, combined with large site area, the species list is not fully comprehensive. However, this limitation does not affect the robust characterisation of the principal vegetation communities present.
BNG Habitat	Other rivers and streams r2b, 191
BNG Condition	Moderate
NVC Community	Not well defined. M23/M27 - type mire.

Table 195: Site 57, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	374499, 516215	
Species List		
Common Name	Scientific Name	Domin Scale
Floating sweet-grass	<i>Glyceria fluitans</i>	5
Marsh-bedstraw	<i>Galium palustre</i>	5
Water mint	<i>Mentha aquatica</i>	7
Soft-rush	<i>Juncus effusus</i>	5
Lesser spearwort	<i>Ranunculus flammula</i>	4
Ragged-robin	<i>Lychnis flos-cuculi</i>	3
Marsh horsetail	<i>Equisetum palustre</i>	5
Lesser stitchwort	<i>Stellaria graminea</i>	4
Greater bird's-foot-trefoil	<i>Lotus pedunculatus</i>	4

Yellow iris	Iris pseudacorus	7
Reed canary-grass	Phalaris arundinacea	4
Marsh-marigold	Caltha palustris	3

Table 196: Site 57, Habitat 2: Survey Details

Site Name	Site 57 Habitat 2
Date	07/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Large flat field dominated by tufted hair-grass, slightly damp. Line of semi-mature alder and willow sp. along railway line to south. Railway embankment of Arrhenatherum grassland (we did not access the railway line).
Management Notes	No current management apparent
Condition Notes	Relatively uniform habitat with little variation in sward height. Probable occasional grazing.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	Probably not
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.5

Field Cover (%)	>95
Ground Layer height (above ground mean, m)	negligible
Ground Cover (%)	50
Leaf Litter	negligible
Thatch	N/A
Bare Ground	<5
Other Notes	
BNG Habitat	Other neutral grassland g3c
BNG Condition	Moderate
NVC Community	MG9

Table 197: Site 57, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	374453, 516214	
Species List		
Common Name	Scientific Name	Domin Scale
Tufted hair-grass	<i>Deschampsia cespitosa</i>	7
Yorkshire-fog	<i>Holcus lanatus</i>	7
Sweet vernal-grass	<i>Anthoxanthum odoratum</i>	4
Common sedge	<i>Carex nigra</i>	3
Fen bedstraw	<i>Galium uliginosum</i>	4
Lesser spearwort	<i>Ranunculus flammula</i>	3
Creeping buttercup	<i>Ranunculus repens</i>	3
Sharp-flowered rush	<i>Juncus acutiflorus</i>	4
Soft-rush	<i>Juncus effusus</i>	5
Pointed spear-moss	<i>Calliergonella cuspidata</i>	7
Lesser stitchwort	<i>Stellaria graminea</i>	3
Oval sedge	<i>Carex leporina</i>	4

Reed canary-grass	Phalaris arundinacea	4
Ragged-robin	Lychnis flos-cuculi	3
Yellow iris	Iris pseudacorus	4
Marsh ragwort	Senecio aquaticus	3
Skullcap	Scutellaria galericulata	3

Table 198: Site 57, Habitat 3: Survey Details

Site Name	Site 57 Habitat 3
Date	07/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Ditch community along long line of watercourse running east-west through Site.
Management Notes	No current management apparent. Probably occasionally grazed by stray sheep.
Condition Notes	Species diversity low but relatively undisturbed habitat.
Slope	Gently sloping towards west
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Rivers & Streams
Canopy Layer Height (mean, m)	N/A

Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.9
Field Cover (%)	100%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	<5
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	Negligible
Other Notes	
BNG Habitat	Other neutral grassland g3c
BNG Condition	Moderate
NVC Community	Ill-defined, reflecting limited extent and surrounding land-use. MG1c probably best fit.

Table 199: Site 57, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	374032, 516359	
Species List		
Common Name	Scientific Name	Domin Scale
Meadowsweet	Filipendula ulmaria	7
Marsh valerian	Valeriana dioica	3
Reed canary-grass	Phalaris arundinacea	4
False oat-grass	Arrhenatherum elatius	7
Common nettle	Urtica dioica	3

Table 200: Site 57, Habitat 4: Survey Details

Site Name	Site 57 Habitat 4
Date	07/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	More species-poor version of Habitat 2. More intensively grazed and fringed by MG1-type grassland.
Management Notes	Grazed. No other current management apparent.
Condition Notes	Poor. Heavily grazed. Low species diversity.
Slope	Sloping gently north towards watercourse/flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.15
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	20
Leaf Litter	Negligible

Thatch	Negligible
Bare Ground	<5
Other Notes	
BNG Habitat	Other neutral grassland g3c
BNG Condition	Poor
NVC Community	MG9/MG1c

Table 201: Site 57, Habitat 4: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	374106, 516291	
Species List		
Common Name	Scientific Name	Domin Scale
Tufted hair-grass	Deschampsia cespitosa	7
Yorkshire-fog	Holcus lanatus	7
Sweet vernal-grass	Anthoxanthum odoratum	4
Lesser spearwort	Ranunculus flammula	3
Creeping buttercup	Ranunculus repens	3
Sharp-flowered rush	Juncus acutiflorus	4
Soft-rush	Juncus effusus	5
Pointed spear-moss	Calliergonella cuspidata	7
Marsh ragwort	Senecio aquaticus	3

Table 202: Site 57, Habitat 5: Survey Details

Site Name	Site 57 Habitat 5
Date	07/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid

Site/Vegetation Description	Small area of damper ground dominated by reed canary-grass. Tends towards grassland habitat rather than mire habitat.
Management Notes	No current management apparent.
Condition Notes	Relatively undisturbed or affected by surrounding land-use.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	Probably not.
Peat Depth (if present, cm)	N/A
Broad Habitat	N/A
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	1.2
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	5
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5
Other Notes	
BNG Habitat	Other neutral grassland g3c

BNG Condition	Moderate
NVC Community	Not well defined. MG9/M27 type.

Table 203: Site 57, Habitat 5: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	374286, 516216	
Species List		
Common Name	Scientific Name	Domin Scale
Reed canary-grass	Phalaris arundinacea	8
Soft-rush	Juncus effusus	7
False fox-sedge	Carex otrubae	3
Common nettle	Urtica dioica	4
False oat-grass	Arrhenatherum elatius	4
Tufted hair-grass	Deschampsia cespitosa	4

Table 204: Site 57, Habitat 6: Survey Details

Site Name	Site 57 Habitat 6
Date	07/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Area of mire vegetation with meadowsweet and soft rush dominant. Transitions to MG9-type in places.
Management Notes	No current management apparent but probably at least lightly grazed.

Condition Notes	Undisturbed habitat. Species diversity relatively low. Sward height uniform.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	Possible
Peat Depth (if present, cm)	N/A
Broad Habitat	Wetland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.9
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	20
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5
Other Notes	
BNG Habitat	Lowland fens f2a (small areas more like other neutral grassland g3c)
BNG Condition	Moderate
NVC Community	M27c (small areas more like MG9)

Table 205: Site 57, Habitat 6: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area

Grid Reference (X, Y)		374465, 516121
Species List		
Common Name	Scientific Name	Domin Scale
Meadowsweet	Filipendula ulmaria	7
Soft-rush	Juncus effusus	7
Tufted hair-grass	Deschampsia cespitosa	5
Yorkshire-fog	Holcus lanatus	5
Greater bird's-foot-trefoil	Lotus pedunculatus	3
Marsh valerian	Valeriana dioica	4
Common sorrel	Rumex acetosa	3
Common feather-moss	Kindbergia praelonga	5

Table 206: Site 57, Habitat 7: Survey Details

Site Name	Site 57 Habitat 7
Date	07/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	This is an area of plantation woodland (Aspen) and Arrhenatherum grassland with scattered trees. We did not examine the habitat in detail.
Management Notes	Well fenced and probably little grazed by sheep (deer prevalent in area). No current management apparent.
Condition Notes	Undisturbed. Some variation in age structure of trees although regeneration not apparent. Dead wood not apparent. Understorey negligible.
Slope	Very gentle slope towards watercourse adjacent to the south.
Aspect	N/A
Soil pH	N/A

Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	8
Canopy Cover (%)	75
Understory/Shrub Layer height (m)	Negligible
Understorey Cover (%)	Negligible
Field Layer height (mean, m)	0.4
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5
Other Notes	
BNG Habitat	Other woodland; mixed w1h. Neutral grassland with scattered trees g3c, 11
BNG Condition	Moderate
NVC Community	N/A

Table 207: Site 57, Habitat 7: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	374149, 516308	
Species List		
Common Name	Scientific Name	Domin Scale
Aspen	Populus tremula	5
False oat-grass	Arrhenatherum elatius	7
Hogweed	Heracleum sphondylium	4

Yorkshire-fog	Holcus lanatus	5
Creeping buttercup	Ranunculus repens	5

Table 208: Site 57, Habitat 8: Survey Details

Site Name	Site 57 Habitat 8
Date	07/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
site description	Small area of mixed plantation woodland of semi-mature/mature trees.
Management Notes	Grazed. No other current management apparent.
Condition Notes	No regeneration. No understory. Very little dead wood. Ground flora species-poor and no woodland indicators.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18m
Canopy Cover (%)	60%
Understory/Shrub Layer hieght (m)	None

Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.2 M
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5%
Other Notes	
BNG Habitat	Other woodland; mixed w1h
BNG Condition	Poor
NVC Community	N/A

Table 209: Site 57, Habitat 8: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	374365 , 516249	
Species List		
Common Name	Scientific Name	Domin Scale
Scots pine	<i>Pinus sylvestris</i>	5
Beech	<i>Fagus sylvatica</i>	5
Ash	<i>Fraxinus excelsior</i>	4
Alder	<i>Alnus glutinosa</i>	4
Silver birch	<i>Betula pendula</i>	4
Common sorrel	<i>Rumex acetosa</i>	4
Perennial rye-grass	<i>Lolium perenne</i>	7
Rough meadow-grass	<i>Poa trivialis</i>	5
Common nettle	<i>Urtica dioica</i>	4
Creeping thistle	<i>Cirsium arvense</i>	4

Rough-stalked feather-moss	Brachythecium rutabulum	5
Common feather-moss	Kindbergia praelonga	5

Table 210: Site 57, Habitat 9: Survey Details

Site Name	Site 57 Habitat 9
Date	07/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Sheep-grazed field.
Management Notes	Grazed. No other current management apparent.
Condition Notes	Relatively species poor. However, relatively undamaged by grazing and surrounding agricultural land-use.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A

Field Layer height (mean, m)	0.4
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	50
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5
Other Notes	
BNG Habitat	Other neutral grassland g3c
BNG Condition	Moderate
NVC Community	MG9/MG1c type communities with rushes abundant and meadowsweet dominant in places.

Table 211: Site 57, Habitat 9: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	374325 , 516291	
Species List		
Common Name	Scientific Name	Domin Scale
Tufted hair-grass	<i>Deschampsia cespitosa</i>	5
Yorkshire-fog	<i>Holcus lanatus</i>	7
Rough meadow-grass	<i>Poa trivialis</i>	4
Creeping buttercup	<i>Ranunculus repens</i>	5
Soft-rush	<i>Juncus effusus</i>	5
Creeping bent	<i>Agrostis stolonifera</i>	4
Meadowsweet	<i>Filipendula ulmaria</i>	5
Pointed spear-moss	<i>Calliergonella cuspidata</i>	5
Common feather-moss	<i>Kindbergia praelonga</i>	5
Creeping thistle	<i>Cirsium arvense</i>	4
Spear thistle	<i>Cirsium vulgare</i>	3

Marsh valerian	Valeriana dioica	3
Yellow iris	Iris pseudacorus	3
Marsh-bedstraw	Galium palustre	3
Tormentil	Potentilla erecta	3

Table 212: Site 58, Habitat 1: Survey Details

Site Name	Site 58 Area 1
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
	This area is a mosaic of three communities blending into each other and difficult to map except at a very fine scale. Reed swamp (S4) is present, along with patches of purple moor-grass mire (M25) with rushes prominent, and areas dominated by meadowsweet (M27). Occasional scattered young birch and willow species present, and a line of older birch and willow species along the railway line.
Management Notes	No obvious current management apparent.
Condition Notes	Good condition, undisturbed habitat. Very little encroachment of undesirable species from surrounding agricultural land, or species indicative of eutrophication.
Slope	Flat
Aspect	N/A
Soil pH	Unknown
Soil Depth (cm)	Unknown
Peat present?	Not known. Possible.
Peat Depth (if present, cm)	Unknown
Broad Habitat	Wetland
Canopy Layer Height (mean, m)	N/A

Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	N/A
Field Cover (%)	N/A
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	N/A
Thatch	N/A
Bare Ground	N/A
Other Notes	Site 58: Due to time restrictions on military land, combined with large site area, the species list is not fully comprehensive. However, this limitation does not affect the robust characterisation of the principal vegetation communities present
BNG Habitat	Reed beds f2e, lowland fen f2a, 15, 16
BNG Condition	Good
NVC Community	S4, M25c, M27 (sub-community ill-defined)

Table 213: Site 58, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	372217, 517369	
Species List		
Common Name	Scientific Name	Domin Scale
M27-type Habitat		
Meadowsweet	Filipendula ulmaria	8
Purple moor-grass	Molinia caerulea	4
Marsh thistle	Cirsium palustre	5
Common sorrel	Rumex acetosa	5

Marsh-bedstraw	Galium palustre	5
Sharp-flowered rush	Juncus acutiflorus	5
Marsh willowherb	Epilobium palustre	4
Marsh valerian	Valeriana dioica	5
Ragged-robin	Lychnis flos-cuculi	3
Greater tussock-sedge	Carex paniculata	4
Marsh cinquefoil	Comarum palustre	3
M25-type Habitat		
Sharp-flowered rush	Juncus acutiflorus	7
Purple moor-grass	Molinia caerulea	5
Brown bent	Agrostis vinealis	4
Marsh cinquefoil	Comarum palustre	5
Marsh thistle	Cirsium palustre	4
Marsh willowherb	Epilobium palustre	4
Tormentil	Potentilla erecta	4
Common hemp-nettle	Galeopsis tetrahit	3
Broad-leaved willowherb	Epilobium montanum	3
Lesser spearwort	Ranunculus flammula	3
Marsh-bedstraw	Galium palustre	4
Compact rush	Juncus conglomeratus	3
Wild angelica	Angelica sylvestris	3
Marsh horsetail	Equisetum palustre	7
S4 Habitat		
Common reed	Phragmites australis	7
Water horsetail	Equisetum fluviatile	7
Bottle sedge	Carex rostrata	5
Grey willow	Salix cinerea	4

Table 214: Site 58, Habitat 2: Survey Details

Site Name	Site 58 Area 2
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Mature birch woodland with occasional semi-mature ash and aspen.
Management Notes	No current management apparent.
Condition Notes	Moderate. Some standing deadwood, very little fallen deadwood. Very young aspen saplings, but otherwise no regeneration. Evidence of strong grazing pressure from rabbits and/or deer.
Slope	Flat
Aspect	N/A
Soil pH	Unknown
Soil Depth (cm)	Unknown
Peat present?	Not known. Possible.
Peat Depth (if present, cm)	Unknown
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18 m
Canopy Cover (%)	80%
Understory/Shrub Layer height (m)	5 m
Understorey Cover (%)	5%
Field Layer height (mean, m)	0.4 m
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5%

Other Notes	Site 58: Due to time restrictions on military land, combined with large site area, the species list is not fully comprehensive. However, this limitation does not affect the robust characterisation of the principal vegetation communities present. This is Priority Habitat (but is not Annex I habitat).
BNG Habitat	Wet woodland w1d
BNG Condition	Moderate
NVC Community	W6 woodland dominated by birch sp. Most closely resembles W6e.

Table 215: Site 58, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	372388, 517325	
Species List		
Common Name	Scientific Name	Domin Scale
Downy birch	Betula pubescens	8
Grey willow	Salix cinerea	4
Aspen	Populus tremula	1
Ash	Fraxinus excelsior	1
Common nettle	Urtica dioica	8
Creeping thistle	Cirsium arvense	4
Yorkshire-fog	Holcus lanatus	7
Creeping buttercup	Ranunculus repens	3
Common haircap	Polytrichum commune	3
Cleavers	Galium aparine	3
Rough meadow-grass	Poa trivialis	3
Rough-stalked feather-moss	Brachythecium rutabulum	3
Broad buckler-fern	Dryopteris dilatata	3
Lady-fern	Athyrium filix-femina	3
Bracken	Pteridium aquilinum	3
Sweet vernal-grass	Anthoxanthum odoratum	3
Soft-rush	Juncus effusus	3

Springy turf-moss	Rhytidiadelphus squarrosus	6
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Table 216: Site 58, Habitat 3: Survey Details

Site Name	Site 58 Area 3
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Area of grassland on outcrop of raised ground. Very sandy. Heavily grazed by rabbits and extensive warrens present.
Management Notes	No current management apparent.
Condition Notes	Moderate condition, reasonable species diversity, general absence of undesirable species, no invasive species, but because of grazing pressure, little variation in sward height and structure.
Slope	Varied but mainly gentle slope towards south
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No.
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A

Field Layer height (mean, m)	0.04 m
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5% (mainly areas scraped by rabbits)
Other Notes	Site 58 Due to time restrictions on military land, combined with large site area, the species list is not fully comprehensive. However, this limitation does not affect the robust characterisation of the principal vegetation communities present This is Priority Habitat.
BNG Habitat	Other lowland dry acid grassland g1a6
BNG Condition	Moderate
NVC Community	U4a

Table 217: Site 58, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	372447, 517267	
Species List		
Common Name	Scientific Name	Domin Scale
Heath speedwell	Veronica officinalis	4
Germander speedwell	Veronica chamaedrys	4
Sheep's sorrel	Rumex acetosella	7
Heath bedstraw	Galium saxatile	5
Heath wood-rush	Luzula multiflora	5
Soft-rush	Juncus effusus	4
Lesser stitchwort	Stellaria graminea	3
Tormentil	Potentilla erecta	4
Springy turf-moss	Rhytidiadelphus squarrosus	7

Neat feather-moss	Pseudoscleropodium purum	5
Rusty swan-neck moss	Campylopus flexuosus	5
Mouse-ear-hawkweed	Pilosella officinarum	4
Common bent	Agrostis capillaris	7
Red fescue	Festuca rubra	7
Yorkshire-fog	Holcus lanatus	4
Heath rush	Juncus squarrosus	4
Sweet vernal-grass	Anthoxanthum odoratum	4
Sheep's-fescue	Festuca ovina	5

Table 218: Site 58, Habitat 4: Survey Details

Site Name	Site 58 Area 4
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Small shallow pond, diameter approximately 20m, depth approximately 20cm, water clarity good, but filamentous algae present in small discreet patches. No submerged aquatic plants. Common duckweed occasional. Common reed frequent. Fringed by young/semi-mature willow species. Fish present.
Management Notes	Clearly used for game bird rearing, because contained within an electric fence and feeder present.

Condition Notes	Poor because of lack of aquatic plants and marginals. Shading to approximately half the surface area.
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	N/A
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	N/A
Field Cover (%)	N/A
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	N/A
Thatch	N/A
Bare Ground	N/A
Other Notes	This is not Priority Habitat
BNG Habitat	Other eutrophic standing waters r1a6
BNG Condition	Poor
NVC Community	Not assessed. No aquatic community and marginal community negligible.

Table 219: Site 58, Habitat 5: Survey Details

Site Name	Site 58 Area 5
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Small area of developing woodland with supporting grassland vegetation to east. To north of railway line and adjacent to arable fields.
Management Notes	Previously used for game cover, with feeding hopper present. No current management apparent.
Condition Notes	Clearly influenced around margins by adjacent arable, with herbicide damage and eutrophication. Little dead wood and no signs of regeneration.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	80
Understory/Shrub Layer height (m)	7
Understory/Shrub Layer cover (%)	10
Field Layer height (mean, m)	0.6
Field Cover (%)	90
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible

Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	10
Other Notes	Technically, the woodland is Priority Habitat although it is not currently a good example.
BNG Habitat	Wet woodland w1d. Arrhenatherum neutral grassland g3c5.
BNG Condition	Poor
NVC Community	Poorly fitting W6 type.

Table 220: Site 58, Habitat 5: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	372607, 517303	
Species List		
Common Name	Scientific Name	Domin Scale
Grey willow	Salix cinerea	4
Goat willow	Salix caprea	4
Alder	Alnus glutinosa	4
Great willowherb	Epilobium hirsutum	4
False oat-grass	Arrhenatherum elatius	7
Common nettle	Urtica dioica	5
Tufted hair-grass	Deschampsia cespitosa	3
Meadowsweet	Filipendula ulmaria	4
Wild angelica	Angelica sylvestris	3
Hogweed	Heracleum sphondylium	4
Creeping thistle	Cirsium arvense	4
Cleavers	Galium aparine	5
Elder	Sambucus nigra	3
Hawthorn	Crataegus monogyna	3

Table 221: Site 58, Habitat 6: Survey Details

Site Name	Site 58 Area 6
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Mainly purple moor-grass mire with rushes prominent. Small area of S12 <i>Typha latifolia</i> swamp to the western end of the area. Occasional scattered young birch sp. and willow spp.
Management Notes	Lightly cattle grazed? No other current management apparent.
Condition Notes	Good condition relatively undisturbed habitat
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	Possible
Peat Depth (if present, cm)	N/A
Broad Habitat	Wetland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	.5m
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	80

Leaf Litter	N/A
Thatch	N/A
Bare Ground	Negligible
Other Notes	Site 58: Due to time restrictions on military land, combined with large site area, the species list is not fully comprehensive. However, this limitation does not affect the robust characterisation of the principal vegetation communities present
BNG Habitat	Lowland fen f2a, 15
BNG Condition	Good
NVC Community	M25c

Table 222: Site 58, Habitat 6: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	372689, 517154	
Species List		
Common Name	Scientific Name	Domin Scale
Pointed spear-moss	Calliergonella cuspidata	7
Yorkshire-fog	Holcus lanatus	7
Sharp-flowered rush	Juncus acutiflorus	7
Dense-headed heath wood-rush	Luzula multiflora subsp. congesta	4
False oat-grass	Arrhenatherum elatius	4
Purple moor-grass	Molinia caerulea	4
Sweet vernal-grass	Anthoxanthum odoratum	4
Creeping bent	Agrostis stolonifera	4
Blunt-leaved bog-moss	Sphagnum palustre	3
Marsh-bedstraw	Galium palustre	5
Marsh thistle	Cirsium palustre	4
Wild angelica	Angelica sylvestris	3

Marsh valerian	Valeriana dioica	5
Creeping buttercup	Ranunculus repens	4
Ragged-robin	Lychnis flos-cuculi	4
Greater bird's-foot-trefoil	Lotus pedunculatus	4
Soft-rush	Juncus effusus	4
Common nettle	Urtica dioica	3
Male fern	Dryopteris filix-mas	3
Tormentil	Potentilla erecta	3
Bulrush	Typha latifolia	3

Table 223: Site 58, Habitat 7: Survey Details

Site Name	Site 58 Area 7
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Small area of heavily grazed acid grassland on very sandy soil, very slightly raised above surrounding area, rabbit warrens present.
Management Notes	No current management apparent.
Condition Notes	Moderate, although heavily grazed and lacking variation in sward height. Relatively species diverse and undesirable species not prominent.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A

Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.06
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	60%
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5% (scrapes by rabbits)
Other Notes	Site 58: Due to time restrictions on military land, combined with large site area, the species list is not fully comprehensive. However, this limitation does not affect the robust characterisation of the principal vegetation communities present. This is Priority Habitat.
BNG Habitat	Other lowland dry acid grassland g1a6
BNG Condition	Moderate
NVC Community	U4a

Table 224: Site 58, Habitat 7: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	372797, 517103	
Species List		
Common Name	Scientific Name	Domin Scale

Heath Speedwell	<i>Veronica officinalis</i>	3
Germander Speedwell	<i>Veronica chamaedrys</i>	3
Sheep's Sorrel	<i>Rumex acetosella</i>	5
Heath Bedstraw	<i>Galium saxatile</i>	4
Heath Wood-Rush	<i>Luzula multiflora</i>	3
Soft-Rush	<i>Juncus effusus</i>	3
Tormentil	<i>Potentilla erecta</i>	3
Springy Turf-Moss	<i>Rhytidiadelphus squarrosus</i>	5
Neat Feather-Moss	<i>Pseudoscleropodium purum</i>	4
Rusty Swan-Neck Moss	<i>Campylopus flexuosus</i>	3
Mouse-Ear-Hawkweed	<i>Pilosella officinarum</i>	3
Common Bent	<i>Agrostis capillaris</i>	7
Red Fescue	<i>Festuca rubra</i>	3
Yorkshire-Fog	<i>Holcus lanatus</i>	4
Sweet Vernal-Grass	<i>Anthoxanthum odoratum</i>	4
Sheep's-Fescue	<i>Festuca ovina</i>	5
Spear Thistle	<i>Cirsium vulgare</i>	3
White Clover	<i>Trifolium repens</i>	4
Marsh Thistle	<i>Cirsium palustre</i>	3

Table 225: Site 58, Habitat 8: Survey Details

Site Name	Site 58 Area 8
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid

Site/Vegetation Description	An area of rush pasture with sedges prominent. Common reed becoming frequent towards the east of the area.
Management Notes	Light grazing by cattle? No other current management apparent.
Condition Notes	Good
Slope	Flat
Aspect	N/A
Soil pH	Unknown
Soil Depth (cm)	Unknown
Peat present?	Possible.
Peat Depth (if present, cm)	N/A
Broad Habitat	Wetland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.5
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	60%
Leaf Litter	N/A
Thatch	N/A
Bare Ground	N/A
Other Notes	Site 58: Due to time restrictions on military land, combined with large site area, the species list is not fully comprehensive. However, this limitation does not affect the robust characterisation of the principal vegetation communities present
BNG Habitat	Lowland fens f2a

BNG Condition	Good
NVC Community	M23a

Table 226: Site 58, Habitat 8: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	372866, 517037	
Species List		
Common Name	Scientific Name	Domin Scale
Carnation Sedge	Carex panicea	5
Common Sedge	Carex nigra	5
Flea Sedge	Carex pulicaris	4
Marsh Pennywort	Hydrocotyle vulgaris	4
Common Spotted-Orchid	Dactylorhiza fuchsii	4
Selfheal	Prunella vulgaris	3
Lesser Spearwort	Ranunculus flammula	3
Early Marsh-Orchid	Dactylorhiza incarnata	4
Yellow Sedge [Spp.]	Carex viridula agg.	4
Marsh Arrowgrass	Triglochin palustre	4
Pointed Spear-Moss	Calliergonella cuspidata	7
Yorkshire-Fog	Holcus lanatus	7
Sharp-Flowered Rush	Juncus acutiflorus	7
False Oat-Grass	Arrhenatherum elatius	4
Purple Moor-Grass	Molinia caerulea	4
Sweet Vernal-Grass	Anthoxanthum odoratum	4
Creeping Bent	Agrostis stolonifera	4
Blunt-Leaved Bog-Moss	Sphagnum palustre	3
Marsh-Bedstraw	Galium palustre	4
Marsh Thistle	Cirsium palustre	4

Wild Angelica	Angelica sylvestris	3
Marsh Valerian	Valeriana dioica	5
Creeping Buttercup	Ranunculus repens	3
Ragged-Robin	Lychnis flos-cuculi	4
Soft-Rush	Juncus effusus	4
Male Fern	Dryopteris filix-mas	3
Tormentil	Potentilla erecta	3
Common Reed	Phragmites australis	4

Table 227: Site 58, Habitat 9: Survey Details

Site Name	Site 58 Area 9
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site description	One of the wetter areas of Site 58. Sedges, common cotton-grass and common reed prominent.
Management Notes	Cattle grazed
Condition Notes	Good. Grazing appeared light and trampling etc minimal.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	Possible
Peat Depth (if present, cm)	N/A
Broad Habitat	Wetland
Canopy Layer Height (mean, m)	N/A

Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.4
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	80
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	Negligible
Other Notes	Site 58: Due to time restrictions on military land, combined with large site area, the species list is not fully comprehensive. However, this limitation does not affect the robust characterisation of the principal vegetation communities present.
BNG Habitat	Lowland fens f2a
BNG Condition	Good
NVC Community	Difficult to assign an NVC community as vegetation represents transition between habitats and successional stages. Vegetation has not been mapped.

Table 228: Site 58, Habitat 9: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	373016, 516951	
Species List		
Common Name	Scientific Name	Domin Scale
Common Reed	<i>Phragmites australis</i>	7
Common Cottongrass	<i>Eriophorum angustifolium</i>	7
Marsh Valerian	<i>Valeriana dioica</i>	4
Common Spotted-Orchid	<i>Dactylorhiza fuchsii</i>	4
Early Marsh-Orchid	<i>Dactylorhiza incarnata</i>	3

Lesser Spearwort	Ranunculus flammula	5
Yorkshire-Fog	Holcus lanatus	4
Marsh-Bedstraw	Galium palustre	5
Carnation Sedge	Carex panicea	5
Sharp-Flowered Rush	Juncus acutiflorus	4
Marsh Pennywort	Hydrocotyle vulgaris	4
Marsh Arrowgrass	Triglochin palustre	4
Marsh Horsetail	Equisetum palustre	4
Water Mint	Mentha aquatica	4
Pointed Spear-Moss	Calliergonella cuspidata	7
Common Sedge	Carex nigra	5
Flea Sedge	Carex pulicaris	4
Yellow Sedge [Spp.]	Carex viridula agg.	3
Bottle Sedge	Carex rostrata	4

Table 229: Site 58, Habitat 10: Survey Details

Site Name	Site 58 Area 10
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Scattered mature trees, over very poor sheep grazed soft rush pasture (m23 ish). Birch species with Scots pine.
Management Notes	Grazed. No other current management apparent.

Condition Notes	Very heavily grazed.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.15
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	20
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5
Other Notes	
BNG Habitat	Holcus-Juncus neutral grassland with scattered trees g3c8, 11
BNG Condition	Poor
NVC Community	MG10 type

Table 230: Site 58, Habitat 10: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area

Grid Reference (X, Y)		373117, 516852	
Species List			
Common Name	Scientific Name	Domin Scale	
Birch [Spp.]	Betula [spp.]	4	
Scots Pine	Pinus sylvestris	4	
Yorkshire-Fog	Holcus lanatus	5	
Creeping Thistle	Cirsium arvense	5	
Soft-Rush	Juncus effusus	5	
False Oat-Grass	Arrhenatherum elatius	5	
Creeping Bent	Agrostis stolonifera	5	
Creeping Buttercup	Ranunculus repens	5	
Pointed Spear-Moss	Calliergonella cuspidata	4	

Table 231: Site 58, Habitat 11: Survey Details

Site Name	Site 59 Area 11
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Heavily sheep-grazed field of not botanical interest.
Management Notes	Grazed and improved grassland
Condition Notes	Very heavily grazed. Little diversity in sward height, species-poor.

Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.005
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5
Other Notes	Central grid reference of area 11 = NY 73202 16877. No species list because very short, grazed, sward and livestock in field.
BNG Habitat	Other neutral grassland g3c
BNG Condition	Poor
NVC Community	N/A

Table 232: Site 58, Habitat 12: Survey Details

Site Name	Site 58 Area 12
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak

Weather Conditions (Valid/Adverse conditions)	Valid
Site description	Grazed rush pasture. Species poor. Little botanical interest.
Management Notes	Grazed by cattle and sheep.
Condition Notes	Relatively uniform habitat and heavy grazing.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.6
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	20
Leaf Litter	N/A
Thatch	N/A

Bare Ground	<5
Other Notes	
BNG Habitat	Other neutral grassland g3c, 14
BNG Condition	Poor
NVC Community	MG10-type

Table 233: Site 58, Habitat 12: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	373180, 516730	
Species List		
Common Name	Scientific Name	Domin Scale
Soft-Rush	Juncus effusus	7
Yorkshire-Fog	Holcus lanatus	7
White Clover	Trifolium repens	5
Sweet Vernal-Grass	Anthoxanthum odoratum	5
Crested Dog's-Tail	Cynosurus cristatus	4
Common Feather-Moss	Kindbergia praelonga	5

Table 234: Site 58, Habitat 13: Survey Details

Site Name	Site 58 Area 13
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Grazed fen.

Management Notes	Grazed by sheep and cattle. No other current management apparent.
Condition Notes	Rather uniform and species-poor.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Wetland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.9
Field Cover (%)	<95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	25
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5
Other Notes	
BNG Habitat	Lowland fens f2a
BNG Condition	Moderate
NVC Community	M23a

Table 235: Site 58, Habitat 13: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole Area	Whole Area
Grid Reference (X, Y)	373208, 516805	
Species List		
Common Name	Scientific Name	Domin Scale
Sharp-Flowered Rush	Juncus acutiflorus	8
Yorkshire-Fog	Holcus lanatus	5
Soft-Rush	Juncus effusus	5
Lesser Spearwort	Ranunculus flammula	4
Marsh-Bedstraw	Galium palustre	5
Creeping Buttercup	Ranunculus repens	4
Greater Bird's-Foot-Trefoil	Lotus pedunculatus	4
Spring Turf-Moss	Rhytidiadelphus squarrosus	5
Pointed Spear-Moss	Calliergonella cuspidata	5

Table 236: Site 58, Habitat 14: Survey Details

Site Name	Site 58 Area 14
Date	08/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Some mire habitat present (continuation of Area 13). Rest of area is heavily sheep-grazed neutral grassland of no botanical interest. Half of field sharp flowered rush pasture as area 13. Other half heavily sheep grazed mg1 or worse, of no botanical interest

Management Notes	Grazed. No other current management apparent.
Condition Notes	Mire habitat moderate as for Area 13.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Wetland/grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.6
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	25
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5
Other Notes	Species present in mire vegetation similar to Area 13. Grassland area very short sward and not well defined NVC community.
BNG Habitat	Lowland fens f2a. Other neutral grassland g3c
BNG Condition	Fen = moderate. Grassland = poor.
NVC Community	M23a. Undefinable grassland of no botanical interest.

Table 237: Site 59, Habitat 1: Survey Details

Site Name	Site 59
Date	06/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	The main habitat is acid grassland. Very young lowland dry heath is developing in patches where heather is dominant. The developing heath is largely to the north-west, although there are one or two small patches to the south-east. Sphagnum is present but very rare. A very small area, richer in species (including sphagnum, cottongrass and a dense population of bog asphodel), is located at approximately NY 72326 18337. A field to the east (NY 71966 18216) is agricultural grassland.
Management Notes	Apart from sheep grazing, no current management apparent
Condition Notes	Sward height generally quite uniform and diversity low because of grazing. Heather age-structure limited.
Slope	The site runs south-east to north-west and gently slopes to both side
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	Peat present in places, particularly at highest elevation of site. Other areas sandy.

Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.12 m
Field Cover (%)	98%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	70%
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5%
Other Notes	Heathland too young and fragmented to currently be considered Priority Habitat.
BNG Habitat	Other upland acid grassland g1b6, with patches of developing lowland heathland h1a
BNG Condition	Poor
NVC Community	Approximates to U5, with patches of H1e

Table 238: Site 59, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	
Grid Reference (X, Y)	371860, 518453	
Species List		
Common Name	Scientific Name	Domin Scale
Juniper Haircap	Polytrichum juniperinum	2
Springy Turf Moss	Rhytidiadelphus squarrosus	6
Tormentil	Potentilla erecta	4
Neat Feather-Moss	Pseudoscleropodium purum	3
Heath Rush	Juncus squarrosus	3

Heath Bedstraw	Galium saxatile	2
Purple Moor-Grass	Molinia caerulea	4
Brown Bent	Agrostis vinealis	4
Sweet Vernal-Grass	Anthoxanthum odoratum	4
Sheep's-Fescue	Festuca ovina	3
Mat-Grass	Nardus stricta	3
Heather	Calluna vulgaris	4

Table 239: Site 59, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)		371827, 518427
Species List		
Common Name	Scientific Name	Domin Scale
Brown bent	Agrostis vinealis	5
Common bent	Agrostis capillaris	4
Purple moor-grass	Molinia caerulea	3
Mat-grass	Nardus stricta	5
Heath rush	Juncus squarrosus	4
Neat feather-moss	Pseudoscleropodium purum	7
Springy turf moss	Rhytidiadelphus squarrosus	3
Heather	Calluna vulgaris	4
Heath bedstraw	Galium saxatile	5
Sheep's sorrel	Rumex acetosella	2
Tormentil	Potentilla erecta	1

Table 240: Site 59, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2

Grid Reference (X, Y)	371846, 518379	
Species List		
Common Name	Scientific Name	Domin Scale
Brown Bent	Agrostis vinealis	4
Common Bent	Agrostis capillaris	3
Mat-Grass	Nardus stricta	5
Heather	Calluna vulgaris	5
Bilberry	Vaccinium myrtillus	3
Purple Moor-Grass	Molinia caerulea	3
Heath Rush	Juncus squarrosus	3
Heath Bedstraw	Galium saxatile	2
Sheep's-Fescue	Festuca ovina	3
Neat Feather-Moss	Pseudoscleropodium purum	7
Springy Turf Moss	Rhytidiadelphus squarrosus	4
Cross-Leaved Heath	Erica tetralix	1

Table 241: Site 59, Habitat 1: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4 (Habitat 2)	2x2	2x2
Grid Reference (X, Y)	372295, 518251	
Species List		
Common Name	Scientific Name	Domin Scale
Purple moor-grass	Molinia caerulea	6
Northern deergrass	Trichophorum cespitosum	4
Heath rush	Juncus squarrosus	3
Brown bent	Agrostis vinealis	4
Sheep's-fescue	Festuca ovina	4
Bilberry	Vaccinium myrtillus	3
Cross-leaved heath	Erica tetralix	4

Springy turf-moss	Rhytidiadelphus squarrosus	6
Neat feather-moss	Pseudoscleropodium purum	5
Red-stemmed feather-moss	Pleurozium schrberi	3

Table 242: Site 59, Habitat 1: Quadrat 5

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
5 (Habitat 2)	2x2	2x2
Grid Reference (X, Y)		
372145, 518257		
Species List		
Common Name	Scientific Name	Domin Scale
Mat-Grass	Nardus stricta	3
Sweet Vernal-Grass	Anthoxanthum odoratum	3
Heath Bedstraw	Galium saxatile	5
Tormentil	Potentilla erecta	2
Springy Turf-Moss	Rhytidiadelphus squarrosus	6
Sheep's-Fescue	Festuca ovina	5
Creeping Bent	Agrostis stolonifera	7
Brown Bent	Agrostis vinealis	3

Table 243: Site 60, Habitat 1: Survey Details

Site Name	Site 60 Habitat 1
Date	29/06/2022
Surveyors	Paul Wolstenholme, Dermot McKee
Weather Conditions (temp (°C), wind, cloud, rain)	17°C, BF3, patchy cloud, dry
Site/Vegetation Description	Mature alder woodland along stream in two patches. Ground flora heavily grazed. Himalayan balsam present.

Management Notes	No current management apparent
Condition Notes	Lack of dead wood. Lack of diverse age-structure. No regeneration. Poor ground flora, although some riparian vegetation along stream.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15 m
Canopy Cover (%)	75
Understory/Shrub Layer height (m)	Negligible
Field Layer height (mean, m)	0.2
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5%
Other Notes	Priority Habitat
BNG Habitat	Alder woodland on floodplains (H91E0) w1d5
BNG Condition	Poor
NVC Community	W6

Table 244: Site 60, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	Whole area	Whole area
Grid Reference (X, Y)	355352 , 529355	
Species List		
Common Name	Scientific Name	Domin Scale
Alder	<i>Alnus glutinosa</i>	5
Hogweed	<i>Heracleum sphondylium</i>	5
Common Nettle	<i>Urtica dioica</i>	5
Himalayan Balsam	<i>Impatiens glandulifera</i>	4
False Oat-Grass	<i>Arrhenatherum elatius</i>	5
Rough Meadow-Grass	<i>Poa trivialis</i>	5
Marsh Foxtail	<i>Alopecurus geniculatus</i>	4
Riparian/Aquatic Vegetation Along Stream		
Meadowsweet	<i>Filipendula ulmaria</i>	3
Himalayan Balsam	<i>Impatiens glandulifera</i>	5
Floating Sweet-Grass	<i>Glyceria fluitans</i>	5
Marsh Thistle	<i>Cirsium palustre</i>	4
Marsh-Marigold	<i>Caltha palustris</i>	4
Hemlock Water-Dropwort	<i>Oenanthe crocata</i>	4
Reed Canary-Grass	<i>Phalaris arundinacea</i>	4
Soft-Rush	<i>Juncus effusus</i>	4
Fool's-Water-Cress	<i>Apium nodiflorum</i>	5
Marsh Valerian	<i>Valeriana dioica</i>	4
Water Forget-Me-Not	<i>Myosotis scorpioides</i>	4
Common Water-Crowfoot	<i>Ranunculus aquatilis</i>	4

Table 245: Site 60, Habitat 2: Survey Details

Site Name	Site 60 Habitat 2
Date	29/06/2022
Surveyors	Paul Wolstenholme, Dermot McKee
Weather Conditions (temp (°C), wind, cloud, rain)	17°C, BF3, patchy cloud, dry
Site/Vegetation Description	Neutral grassland. Heavily sheep grazed.
Management Notes	Grazed.
Condition Notes	Poor species diversity. Heavily grazed.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.2
Field Cover (%)	>95
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5%
Other Notes	

BNG Habitat	Other neutral grassland g3c
BNG Condition	Poor
NVC Community	No distinct NVC community

Table 246: Site 60, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	355266 , 529384	
Species List		
Common Name	Scientific Name	Domin Scale
Hogweed	Heracleum sphondylium	5
Common Nettle	Urtica dioica	5
False Oat-Grass	Arrhenatherum elatius	4
Rough Meadow-Grass	Poa trivialis	5
Creeping Thistle	Cirsium arvense	5
Broad-Leaved Dock	Rumex obtusifolius	4
Creeping Buttercup	Ranunculus repens	4
Red Fescue	Festuca rubra	5

Table 247: Site 61, Habitat 1: Survey Details

Site Name	Site 61 Habitat 1
Date	29/06/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	18°C, BF3, patchy cloud, dry
Site/Vegetation Description	Plantation woodland, young alder. The Light Water runs along the western edge of the site but is heavily shaded and does not contain aquatic vegetation.

Management Notes	No current management apparent.
Condition Notes	Very little dead wood. Plantation woodland not well-developed, with only one age class of trees present. Ground flora reasonably representative of wet woodland habitat.
Slope	Generally flat. North-east area of site slopes northwards towards River Eamont.
Aspect	N/A
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	10
Canopy Cover (%)	80
Understory/Shrub Layer height (m)	None
Field Layer height (mean, m)	0.5
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5%
Other Notes	This is not currently priority habitat because it is not developed enough. However, if left to develop, it will be priority habitat.
BNG Habitat	Wet woodland w1d
BNG Condition	Poor (because still young plantation)
NVC Community	Developing W6-type habitat

Table 248: Site 61, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)		354925 , 529125
Species List		
Common Name	Scientific Name	Domin Scale
Alder (Young, Plantation)	<i>Alnus glutinosa</i>	7
Willow Sp.	<i>Salix</i> sp.	5
Large Unidentified Sedge Sp.	<i>Carex</i> sp.	5
Yorkshire-Fog	<i>Holcus lanatus</i>	5
Rough Meadow-Grass	<i>Poa trivialis</i>	5
Field Forget-Me-Not	<i>Myosotis arvensis</i>	4
Common Nettle	<i>Urtica dioica</i>	5
Cleavers	<i>Galium aparine</i>	5
Marsh Thistle	<i>Cirsium palustre</i>	4
Soft-Rush	<i>Juncus effusus</i>	5
Marsh Valerian	<i>Valeriana dioica</i>	4
Wood Dock	<i>Rumex sanguineus</i>	4
Reed Canary-Grass	<i>Phalaris arundinacea</i>	4
False Oat-Grass	<i>Arrhenatherum elatius</i>	4
Creeping Buttercup	<i>Ranunculus repens</i>	5

Table 249: Site 61, Habitat 2: Survey Details

Date	29/06/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	18°C, BF3, patchy cloud, dry

Site/Vegetation Description	Conifer plantation with occasional broad-leaf trees planted as screening around the periphery. A line of tall hybrid poplars planted along the northern boundary.
Management Notes	No current management apparent.
Condition Notes	Plantation woodland not well-developed, with only one age class of conifers present. Poor to non-existent ground flora. Little dead wood.
Slope	Generally flat. North-east area of site slopes northwards towards River Eamont.
Aspect	N/A
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	95
Understory/Shrub Layer height (m)	None
Field Layer height (mean, m)	N/A
Field Cover (%)	Negligible
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible

Bare Ground	<5%
Other Notes	Of no botanical interest.
BNG Habitat	Other woodland; mixed; mainly conifer w1h6
BNG Condition	Poor
NVC Community	No NVC community because plantation

Table 250: Site 61, Habitat 3: Survey Details

Site Name	Site 61 Habitat 3
Date	29/06/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	18°C, BF3, patchy cloud, dry
Site/Vegetation Description	Conifer plantation with mainly larch and Scots pine.
Management Notes	No current management apparent.
Condition Notes	Plantation woodland. One age class, poor ground flora, no understorey, little dead wood.
Slope	Generally flat.
Aspect	N/A
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	15

Canopy Cover (%)	>95
Understory/Shrub Layer height (m)	None
Field Layer height (mean, m)	N/A
Field Cover (%)	Negligible
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5%
Other Notes	Of no botanical interest.
BNG Habitat	Other coniferous woodland w2c
BNG Condition	Poor
NVC Community	No NVC community because plantation

Table 251: Site 62, Habitat 1: Survey Details

Site Name	Site 62, Centre Parcs Road verge
Date	30/06/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	19°C, BF3, patchy cloud, dry
Site/Vegetation Description	Grass verge along both sides of approach road to Centre Parcs. Probably originally seeded. Scattered planted young/semi-mature trees present.
Management Notes	Not recently managed, but almost certainly periodically mown.

Condition Notes	Some variation in sward height and reasonable species diversity. No invasives and few undesirables.
Slope	N/A
Aspect	N/A
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.45
Field Cover (%)	100
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	Negligible
Other Notes	
BNG Habitat	Other neutral grassland g3c5
BNG Condition	Moderate
NVC Community	MG1e

Table 252: Site 62, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2

Grid Reference (X, Y)	357056, 528573	
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	<i>Arrhenatherum elatius</i>	5
Yorkshire-Fog	<i>Holcus lanatus</i>	4
Creeping Bent	<i>Agrostis stolonifera</i>	3
Red Fescue	<i>Festuca rubra</i>	3
Yellow-Rattle	<i>Rhinanthus minor</i>	4
Yarrow	<i>Achillea millefolium</i>	4
Common Ragwort	<i>Senecio jacobaea</i>	2
Common Feather-Moss	<i>Kindbergia praelonga</i>	3
Field Forget-Me-Not	<i>Myosotis arvensis</i>	2
Cock's-Foot	<i>Dactylis glomerata</i>	1
Cow Parsley	<i>Anthriscus sylvestris</i>	1
Hogweed	<i>Heracleum sphondylium</i>	1
Ribwort Plantain	<i>Plantago lanceolata</i>	3
Smooth Hawk's-Beard	<i>Crepis capillaris</i>	1

Table 253: Site 62, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	357070, 528473	
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	<i>Arrhenatherum elatius</i>	5
Yellow-Rattle	<i>Rhinanthus minor</i>	4
Oxeye Daisy	<i>Leucanthemum vulgare</i>	3
Creeping Bent	<i>Agrostis stolonifera</i>	5
Yorkshire-Fog	<i>Holcus lanatus</i>	4
Smooth Tare	<i>Vicia tetrasperma</i>	3

Common Ragwort	Senecio jacobaea	1
Cock's-Foot	Dactylis glomerata	2
Germander Speedwell	Veronica chamaedrys	3
Springy Turf-Moss	Rhytidiadelphus squarrosus	6
Creeping Buttercup	Ranunculus repens	2
Ribwort Plantain	Plantago lanceolata	2

Table 254: Site 62, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	357057, 528425	
Species List		
Common Name	Scientific Name	Domin Scale
Sweet Vernal-Grass	Anthoxanthum odoratum	4
Cock's-Foot	Dactylis glomerata	3
Oxeye Daisy	Leucanthemum vulgare	3
Ribwort Plantain	Plantago lanceolata	4
Red Fescue	Festuca rubra	4
Common Bent	Agrostis capillaris	2
False Oat-Grass	Arrhenatherum elatius	2
Yellow-Rattle	Rhinanthus minor	5
Meadow Vetchling	Lathyrus pratensis	4
Common Knapweed	Centaurea nigra	3
Field Scabious	Knautia arvensis	2
Lesser Trefoil	Trifolium dubium	2
White Clover	Trifolium repens	5

Table 255: Site 62, Habitat 1: Quadrat 4

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
4	2x2	2x2
Grid Reference (X, Y)		
357110, 528287		
Species List		
Common Name	Scientific Name	Domin Scale
False Oat-Grass	Arrhenatherum elatius	4
Red Fescue	Festuca rubra	8
Yorkshire-Fog	Holcus lanatus	5
Common Bent	Agrostis capillaris	4
Common Bird's-Foot-Trefoil	Lotus corniculatus	4
Common Knapweed	Centaurea nigra	2
Yellow-Rattle	Rhinanthus minor	2
Creeping Buttercup	Ranunculus repens	2
Pointed Spear-Moss	Calliergonella cuspidata	4
Common Vetch	Vicia sativa	2

Table 256: Site 63, Habitat 1: Survey Details

Site Name	63
Date	01/07/2022 & 15/07/2022
Surveyors	Paul Wolstenholme & Dermot McKee
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Mixed mature sycamore, ash, elm & beech woodland; early mature at north western extent, becoming more mature at Southern extent with snowberry dominated understorey. Eastern section within police grounds completely dominated by sycamore. Groundflora sparse, with scattered ferns, mosses and other woodland indicator species.
Management Notes	Little evidence of management.

Condition Notes	Mature canopy but with no significant dead wood, age structure or evidence of regeneration. Invasive species present.
Slope	20
Aspect	S
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	85
Understory/Shrub Layer height (m)	4
Field Layer height (mean, m)	0.5
Field Cover (%)	5
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	5
Leaf Litter	0
Thatch	0
Bare Ground	95
Other Notes	Survey undertaken on separate dates due to access - western section (Q1) on the 01/07/22 and the eastern section (Q2) on the 15/07/22 due to delays in police vetting.
BNG Habitat	w1f7 - Other lowland mixed deciduous woodland - Priority Habitat
BNG Condition	Poor

NVC Community

No recognisable NVC community. Ground flora suggests developing W9 type woodland but ground flora not well established and canopy up-planted with beech.

Table 257: Site 63, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	400 x 70	400 x 70
Grid Reference (X, Y)		352313, 528950
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sycamore	<i>Acer pseudoplatanus</i>	6
Wych Elm	<i>Ulmus glabra</i>	5
Beech	<i>Fagus sylvatica</i>	6
Ash	<i>Fraxinus excelsior</i>	5
Shrub		
Elder	<i>Sambucus nigra</i>	2
Hawthorn	<i>Crataegus monogyna</i>	2
Sycamore	<i>Acer pseudoplatanus</i>	2
Snowberry	<i>Symphoricarpos albus</i>	7
Field		
Common Nettle	<i>Urtica dioica</i>	3
Bluebell	<i>Hyacinthoides non-scripta</i>	3
Male-Fern	<i>Dryopteris filix-mas</i>	4
Cleavers	<i>Galium aparine</i>	3
Common Smoothcap	<i>Atricum undulatum</i>	2
Rough-Stalked Feather Moss	<i>Brachythecium rutabulum</i>	2
Swan's-Neck Thyme-Moss	<i>Hypnum cupressiforme</i>	2
Rough Meadow-Grass	<i>Poa trivialis</i>	3

Broad Buckler-Fern	Dryopteris dilatata	1
Cock's-Foot	Dactylis glomerata	1
Common Bent	Agrostis capillaris	1
Bare ground & Leaf Litter	#N/A	8

Table 258: Site 63, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	180 x 70	180 x 70
Grid Reference (X, Y)		
352455, 529079		
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Sycamore	Acer pseudoplatanus	9
Shrub		
Snowberry	Symphoricarpos albus	5
Field		
Male-Fern	Dryopteris filix-mas	5
Common Nettle	Urtica dioica	7
Garlic Mustard	Alliaria petiolata	4
Bluebell	Hyacinthoides non-scripta	4
Swan's-Neck Thyme-Moss	Hypnum cupressiforme	5
Rough-Stalked Feather Moss	Brachythecium rutabulum	4
Variegated-Yellow-Archangel	Lamiastrum galeobdolon argentatum	3
Hollyberry Cotoneaster	Cotoneaster bullatus	1
Rhododendron	Rhododendron ponticum	3

Table 259: Site 63, Habitat 4: Survey Details

Site Name	63
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Date	15/07/2022
Surveyors	Paul Wolstenholme & Dermot McKee
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Woodland area as screening for visitors car park as part of Police HQ. Separated from habitat 1/3 by car-park and amenity grass area with ornamental trees. Diverse open mature canopy with some scattered woodland indicators as ground flora
Management Notes	Disposal of grass clippings evident, but no other significant management
Condition Notes	Complex canopy with no significant deadwood or regeneration present- invasive species also present.
Slope	0
Aspect	Open
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18
Canopy Cover (%)	75
Understory/Shrub Layer height (m)	2
Understorey Cover (%)	5
Field Layer height (mean, m)	0.25
Field Cover (%)	10
Ground Layer height (above ground mean, m)	0.01
Ground Cover (%)	5

Leaf Litter	Minor
Thatch	N/A
Bare Ground	>95
Other Notes	Limited access - Representative quadrat undertaken for habitat
BNG Habitat	w1f7 - Other lowland mixed deciduous woodland - Priority Habitat
BNG Condition	Moderate
NVC Community	No recognisable woodland NVC community - ground flora suggests W8/9 type woodland but lacking key indicators

Table 260: Site 63, Habitat 4: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	352429, 529197	
Species List		
Common Name	Scientific Name	Domin Scale
Canopy		
Common Lime	<i>Tilia x europaea</i>	2
Pedunculate Oak	<i>Quercus robur</i>	3
Beech	<i>Fagus sylvatica</i>	5
Sycamore	<i>Acer pseudoplatanus</i>	6
Yew	<i>Taxus baccata</i>	3
Horse-Chestnut	<i>Aesculus hippocastanum</i>	3
Lawson's Cypress	<i>Chamaecyparis lawsoniana</i>	3
Shrubs		
Gooseberry	<i>Ribes uva-crispa</i>	1
Rhododendron	<i>Rhododendron ponticum</i>	4
Elder	<i>Sambucus nigra</i>	5
Field		
Bluebell	<i>Hyacinthoides non-scripta</i>	4

Garlic Mustard	Alliaria petiolata	5
Lords-And-Ladies	Arum maculatum	2
Common Dog-Violet	Viola riviniana	4
Rough Stalked Feather Moss	Brachythecium rutabulum	5

Table 261: Site 64, Habitat 1: Survey Details

Site Name	64
Date	23/06/2022
Surveyors	Paul Wolstenholme & Dermot McKee
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Tightly grazed grassland on historic mound - exposed boulders present with scattered ruderal vegetation.
Management Notes	Sheep grazed pasture.
Condition Notes	Even short-sward, presence of ruderal vegetation but absence of bare ground, scrub, bracken and significant damaging management.
Slope	to 30
Aspect	Mound with grassland on all aspects
Soil pH	Neutral
Soil Depth (cm)	Unknown
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A

Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.2
Field Cover (%)	90
Ground Layer height (above ground mean, m)	0.05
Ground Cover (%)	70
Leaf Litter	None
Thatch	None
Bare Ground	10
Other Notes	Small area of similar composition - only 3 quadrats undertaken.
BNG Habitat	Lolium-Cynosurus neutral grassland - g3c6
BNG Condition	Moderate
NVC Community	MG6a - Lolium perenne-Cynosurus cristatus grassland, Trisetum flavescens sub-community

Table 262: Site 64, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	351674, 528769	
Species List		
Common Name	Scientific Name	Domin Scale
Common Bent	Agrostis capillaris	8
White Clover	Trifolium repens	5
Perennial Rye-Grass	Lolium perenne	2
Common Ragwort	Senecio jacobaea	2
Black Medick	Medicago lupulina	4
Yorkshire-Fog	Holcus lanatus	3
Lesser Hawkbit	Leontodon saxatilis	1
Smaller Cat's-Tail	Phleum bertolonii	1

Dove's-Foot Crane's-Bill	Geranium molle	2
Common Mouse-Ear	Cerastium fontanum	2
Sheep's Sorrel	Rumex acetosella	1
Springy-Turf Moss	Rhytidiadelphus squarrosus	8
Cock's-Foot	Dactylis glomerata	1
Field Forget-Me-Not	Myosotis arvensis	1
Cut-Leaved Crane's-Bill	Geranium dissectum	2

Table 263: Site 64, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	351659, 528792	
Species List		
Common Name	Scientific Name	Domin Scale
Oxeye Daisy	Leucanthemum vulgare	3
Yellow Oat-Grass	Trisetum flavescens	6
Common Bent	Agrostis capillaris	5
Creeping Thistle	Cirsium arvense	2
Red Fescue	Festuca rubra	5
Common Ragwort	Senecio jacobaea	3
White Clover	Trifolium repens	4
Dove's-Foot Crane's-Bill	Geranium molle	1
False Fox-Sedge	Carex otrubae	4
Dandelion [Spp.]	Taraxacum [spp.]	2
Common Nettle	Urtica dioica	1
Springy-Turf Moss	Rhytidiadelphus squarrosus	8
Common Mouse-Ear	Cerastium fontanum	2
Cut-Leaved Crane's-Bill	Geranium dissectum	1

Bush Vetch	<i>Vicia sepium</i>	1
Meadow Buttercup	<i>Ranunculus acris</i>	1
Yorkshire-Fog	<i>Holcus lanatus</i>	3
Bare Exposed Boulders	#N/A	4

Table 264: Site 64, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	351693, 528774	
Species List		
Common Name	Scientific Name	Domin Scale
Selfheal	<i>Prunella vulgaris</i>	3
Dandelion [Spp.]	<i>Taraxacum [spp.]</i>	1
White Clover	<i>Trifolium repens</i>	4
Creeping Buttercup	<i>Ranunculus repens</i>	3
Common Bent	<i>Agrostis capillaris</i>	5
Perennial Rye-Grass	<i>Lolium perenne</i>	4
Yellow Oat-Grass	<i>Trisetum flavescens</i>	5
Common Ragwort	<i>Senecio jacobaea</i>	2
Cut-Leaved Crane's-Bill	<i>Geranium dissectum</i>	1
Dove's-Foot Crane's-Bill	<i>Geranium molle</i>	1
Black Medick	<i>Medicago lupulina</i>	4
Smaller Cat's-Tail	<i>Phleum bertolonii</i>	1
Common Soft-Brome	<i>Bromus hordeaceus</i>	1
Springy-Turf Moss	<i>Rhytidiadelphus squarrosus</i>	4

Table 265: Site 65, Habitat 1: Survey Details

Site Name	Site 64 Habitat 1
Date	29/06/2022

Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (temp (°C), wind, cloud, rain)	17°C, BF3, patchy cloud, dry
Site/Vegetation Description	Strip of woodland around periphery of site.
Management Notes	No current management apparent.
Condition Notes	Lack of diverse tree age structure. Lack of fallen and standing dead wood. Ground flora poor and indicative of eutrophic conditions.
Slope	Generally flat
Aspect	N/A
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	18 m
Canopy Cover (%)	90
Understory/Shrub Layer height (m)	6
Field Layer height (mean, m)	0.8
Field Cover (%)	70
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible

Bare Ground	20
Other Notes	Not Priority Habitat
BNG Habitat	Other woodland; broadleaved w1g
BNG Condition	Poor
NVC Community	No recognizable NVC community

Table 266: Site 65, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	351553, 528777	
Species List		
Common Name	Scientific Name	Domin Scale
Sycamore	<i>Acer pseudoplatanus</i>	7
Hawthorn	<i>Crataegus monogyna</i>	5
Elder	<i>Sambucus nigra</i>	4
Hazel	<i>Corylus avellana</i>	4
Crab Apple	<i>Malus sylvestris</i>	3
Goat Willow	<i>Salix caprea</i>	5
Willow Sp.	<i>Salix sp.</i>	4
Common Lime	<i>Tilia x europaea</i>	3
Pedunculate Oak (Young)	<i>Quercus robur</i>	3
Wych Elm	<i>Ulmus glabra</i>	3
Silver Birch	<i>Betula pendula</i>	3
Ash	<i>Fraxinus excelsior</i>	3
Common Nettle	<i>Urtica dioica</i>	5
Hogweed	<i>Heracleum sphondylium</i>	5
False Oat-Grass	<i>Arrhenatherum elatius</i>	5
Cleavers	<i>Galium aparine</i>	5

Table 267: Site 65, Habitat 2: Survey Details

Site Name	Site 65 Habitat 2
Date	29/06/2022
Surveyors	Dermot McKee, Paul Wolstenholme
Weather Conditions (temp (°C), wind, cloud, rain)	18°C, BF3, patchy cloud, dry
Site/Vegetation Description	Grassland area within larger site. Used for pony trekking and moderately grazed in places by horses and rabbits.
Management Notes	No current management apparent.
Condition Notes	Reasonable variation in sward height because of grazing and trampling by horses/rabbits. Reasonable species diversity.
Slope	Flat
Aspect	N/A
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.4
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	negligible
Ground Cover (%)	80
Leaf Litter	negligible

Thatch	negligible
Bare Ground	<5%
Other Notes	
BNG Habitat	Arrhenatherum neutral grassland g3c5
BNG Condition	Moderate
NVC Community	MG1-type

Table 268: Site 65, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	351557, 528817	
Species List		
Common Name	Scientific Name	Domin Scale
Springy Turf-Moss	Rhytidiadelphus squarrosus	7
Red Fescue	Festuca rubra	5
False Oat-Grass	Arrhenatherum elatius	4
Yorkshire-Fog	Holcus lanatus	4
Ribwort Plantain	Plantago lanceolata	3
White Clover	Trifolium repens	3
Germander Speedwell	Veronica chamaedrys	3
Hedge Bedstraw	Galium mollugo	3
Fox-And-Cubs	Pilosella aurantiaca	2
Mouse-Ear-Hawkweed	Pilosella officinarum	3
Common Bent	Agrostis capillaris	2
Dog-Rose	Rosa canina	1
Lesser Stitchwort	Stellaria graminea	2

Table 269: Site 65, Habitat 2: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2

Grid Reference (X, Y)	351555, 528804	
Species List		
Common Name	Scientific Name	Domin Scale
Springy Turf-Moss	Rhytidiadelphus squarrosus	8
Red Fescue	Festuca rubra	5
False Oat-Grass	Arrhenatherum elatius	4
Yorkshire-Fog	Holcus lanatus	4
White Clover	Trifolium repens	4
Germander Speedwell	Veronica chamaedrys	1
Lesser Stitchwort	Stellaria graminea	1
Mouse-Ear-Hawkweed	Pilosella officinarum	2
Ribwort Plantain	Plantago lanceolata	3
Common Mouse-Ear	Cerastium fontanum	1
Common Bent	Agrostis capillaris	3
Field Forget-Me-Not	Myosotis arvensis	1
Imperforate St John's-Wort	Hypericum maculatum	2

Table 270: Site 65, Habitat 2: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	351547, 528805	
Species List		
Common Name	Scientific Name	Domin Scale
Tufted vetch	Vicia cracca	1
Common bent	Agrostis capillaris	4
False oat-grass	Arrhenatherum elatius	5
Red fescue	Festuca rubra	5
Yorkshire-fog	Holcus lanatus	4
Germander speedwell	Veronica chamaedrys	3
Hedge bedstraw	Galium mollugo	4

Springy turf-moss	Rhytidiadelphus squarrosus	7
White clover	Trifolium repens	2
Lesser stitchwort	Stellaria graminea	2
Mouse-ear-hawkweed	Pilosella officinarum	1
Oval sedge	Carex leporina	2

Table 271: Site 65, Habitat 3: Survey Details

Site Name	Site 65 Habitat 3
Date	29/06/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	18°C, BF3, patchy cloud, dry
Site/Vegetation Description	Grassland area within larger site.
Management Notes	No current management apparent.
Condition Notes	Sward height uniform. Relatively high presence of nettles, particularly around margins. Species diversity relatively low.
Slope	Flat
Aspect	N/A
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland

Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.8
Field Cover (%)	>95%
Ground Layer height (above ground mean, m)	negligible
Ground Cover (%)	80
Leaf Litter	negligible
Thatch	negligible
Bare Ground	<5%
Other Notes	
BNG Habitat	Arrhenatherum neutral grassland g3c5
BNG Condition	Poor
NVC Community	MG1b

Table 272: Site 65, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	351612, 528835	
Species List		
Common Name	Scientific Name	Domin Scale
Meadow Foxtail	<i>Alopecurus pratensis</i>	5
Rough Meadow-Grass	<i>Poa trivialis</i>	5
Barren Brome	<i>Anisantha sterilis</i>	4
False Oat-Grass	<i>Arrhenatherum elatius</i>	5
Yorkshire-Fog	<i>Holcus lanatus</i>	5
Crosswort	<i>Cruciata laevipes</i>	4
Common Nettle	<i>Urtica dioica</i>	4
Hedge Woundwort	<i>Stachys sylvatica</i>	3

Hogweed	Heracleum sphondylium	2
Hedge Bedstraw	Galium mollugo	3
Common Feather-Moss	Kindbergia praelonga	6
Cleavers	Galium aparine	3

Table 273: Site 65, Habitat 3: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)		
351598, 528836		
Species List		
Common Name	Scientific Name	Domin Scale
Meadow Foxtail	Alopecurus pratensis	5
Rough Meadow-Grass	Poa trivialis	5
False Oat-Grass	Arrhenatherum elatius	6
Yorkshire-Fog	Holcus lanatus	5
Common Nettle	Urtica dioica	5
Hedge Woundwort	Stachys sylvatica	3
Hogweed	Heracleum sphondylium	2
Hedge Bedstraw	Galium mollugo	2
Common Feather-Moss	Kinbergia praelonga	5
Cleavers	Galium aparine	3
Tufted Vetch	Vicia cracca	1
Meadow Vetchling	Lathyrus pratensis	2

Table 274: Site 65, Habitat 3: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
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3	2x2	2x2
Grid Reference (X, Y)	351597, 528850	
Species List		
Common Name	Scientific Name	Domin Scale
Yorkshire-Fog	Holcus lanatus	6
False Oat-Grass	Arrhenatherum elatius	6
Common Feather-Moss	Kindbergia praelonga	5
Hogweed	Heracleum sphondylium	1
Common Sorrel	Rumex acetosa	2
Lesser Stitchwort	Stellaria graminea	2
Hedge Bedstraw	Galium mollugo	4
Germander Speedwell	Veronica chamaedrys	2
Meadow Vetchling	Lathyrus pratensis	2
Ribwort Plantain	Plantago lanceolata	2
Common Knapweed	Centaurea nigra	2

Table 275: Site 66, Habitat 1: Survey Details

Site Name	66
Date	06/07/2022
Surveyors	Paul Wolstenholme, Lucia Schlecht
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Sheep grazed pasture - species poor with few forbs present.
Management Notes	Sheep grazed.

Condition Notes	Modified grassland - seeded origin, high abundance of ryegrass - Poor.
Slope	N/A
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	N/A
Field Layer height (mean, m)	0.015
Field Cover (%)	100
Ground Layer height (above ground mean, m)	0
Ground Cover (%)	0
Leaf Litter	N/A
Thatch	N/A
Bare Ground	N/A
Other Notes	
BNG Habitat	g4 - Modified grassland
BNG Condition	Poor
NVC Community	MG6a - Lolium perenne-Cynosurus cristatus grassland, typical sub-community - Possible fit for Alopecurus pratensis variant.

Table 276: Site 66, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)		364298, 525718
Species List		
Common Name	Scientific Name	Domin Scale
Perennial Rye-Grass	Lolium perenne	7
Yorkshire-Fog	Holcus lanatus	6
Rough Meadow-Grass	Poa trivialis	4
Meadow Foxtail	Alopecurus pratensis	4
Sweet Vernal-Grass	Anthoxanthum odoratum	3
White Clover	Trifolium repens	5
Common Mouse-Ear	Cerastium fontanum	3
Yarrow	Achillea millefolium	4

Table 277: Site 67, Habitat 1: Survey Details

Site Name	Site 67 Habitat 1
Date	01/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	17°C, BF2, patchy cloud, dry
Site/Vegetation Description	Damp grassland surrounded by arable and grass crops.
Management Notes	No obvious recent management. However, drained and historic attempts at improvement (probably cut and directly fertilised).

Condition Notes	Poor condition. Low species diversity, uniform sward height, strongly impacted by surrounding land use.
Slope	Flat
Aspect	Flat
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	0.9
Field Cover (%)	100
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	Negligible
Other Notes	Seasonally wet. Bryophytes not apparent.
BNG Habitat	Other neutral grassland g3c
BNG Condition	Poor
NVC Community	MG9a

Table 278: Site 67, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2

Grid Reference (X, Y)	362674, 526719	
Species List		
Common Name	Scientific Name	Domin Scale
Tufted Hair-Grass	Deschampsia cespitosa	5
Yorkshire Fog	Holcus lanatus	8
Creeping Buttercup	Ranunculus repens	1

Table 279: Site 67, Habitat 1: Quadrat 2

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
2	2x2	2x2
Grid Reference (X, Y)	362630, 526751	
Species List		
Common Name	Scientific Name	Domin Scale
Tufted Hair-Grass	Deschampsia cespitosa	4
Yorkshire Fog	Holcus lanatus	7
Rough Meadow-Grass	Poa trivialis	6
Soft Rush	Juncus effusus	4
Creeping Buttercup	Ranunculus repens	3
Meadow Foxtail	Alopecurus pratensis	4
Marsh Bedstraw	Galium palustre	1

Table 280: Site 67, Habitat 1: Quadrat 3

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
3	2x2	2x2
Grid Reference (X, Y)	362577, 526789	
Species List		
Common Name	Scientific Name	Domin Scale
Tufted Hair-Grass	Deschampsia cespitosa	6
Rough Meadow-Grass	Poa trivialis	5

Yorkshire Fog	Holcus lanatus	3
Soft Rush	Juncus effusus	3
Marsh Bedstraw	Galium palustre	1
Creeping Buttercup	Ranunculus repens	4
Field Forget-Me-Not	Myosotis arvensis	2
Skullcap	Scutellaria galericulata	2

Table 281: Site 67, Habitat 2: Survey Details

Site Name	Site 67 Habitat 2
Date	01/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	Valid
Site/Vegetation Description	Small area of fen habitat surrounded by arable. Pretty dry underfoot but likely to be much wetter during winter. A few scattered hawthorn, willow sp., crab apple adds interest. Historic pond at X=362314 , Y=526942 but dry during survey with prolific cover of horsetails and soft rush. Probably wet in winter.
Management Notes	No obvious recent management.
Condition Notes	Species poor and impacted by eutrophication from surrounding arable.
Slope	Flat
Aspect	Flat
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A

Broad Habitat	Fen
Canopy Layer Height (mean, m)	N/A
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	N/A
Field Layer height (mean, m)	1.5
Field Cover (%)	100
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	Negligible
Other Notes	We did not do quadrats because habitat could easily be classified without. Also did not want to trample through too much because of breeding sedge warblers.
BNG Habitat	Lowland fen f2a
BNG Condition	Poor
NVC Community	S28

Table 282: Site 67, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	362354 , 526906	
Species List		
Common Name	Scientific Name	Domin Scale
Couch Grass	<i>Elymus repens</i>	2
Meadow Foxtail	<i>Alopecurus pratensis</i>	2
False Oat-Grass	<i>Arrhenatherum elatius</i>	5
Nettle	<i>Urtica dioica</i>	3
Hogweed	<i>Heracleum sphondylium</i>	2
Marsh Bedstraw	<i>Galium palustre</i>	1

Common Hemp-Nettle	Galeopsis tetrahit	2
Creeping Thistle	Cirsium arvense	2
Reed Canary-Grass	Phalaris arundinacea	7

Table 283: Site 68, Habitat 1: Survey Details

Site Name	Site 68 Habitat 1
Date	14/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Semi-mature plantation woodland.
Management Notes	No current management apparent.
Condition Notes	Site overall has relatively varied age structure and reasonable ground flora although understory lacking, as might be anticipated in a plantation. Rhododendron present. Occasional fallen dead wood.
Slope	Flat to gently sloping to the south.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	N/A
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	90

Understory/Shrub Layer height (m)	Negligible
Understorey Cover (%)	<5
Field Layer height (mean, m)	0.2
Field Cover (%)	60
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	40
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	10
Other Notes	
BNG Habitat	Other woodland; mixed w1h
BNG Condition	Moderate
NVC Community	No NVC community for plantation woodland. Small area of grassland is rather ill-defined M23-type.

Table 284: Site 68, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4 x 4
Grid Reference (X, Y)	416167 , 508440	
Species List		
Common Name	Scientific Name	Domin Scale
Beech	<i>Fagus sylvatica</i>	4
Sycamore	<i>Acer pseudoplatanus</i>	5
European Larch	<i>Larix decidua</i>	4
Scots Pine	<i>Pinus sylvestris</i>	5
Broad Buckler-Fern	<i>Dryopteris dilatata</i>	5
Wood-Sorrel	<i>Oxalis acetosella</i>	4
Yorkshire-Fog	<i>Holcus lanatus</i>	5

Foxglove	Digitalis purpurea	4
Common Nettle	Urtica dioica	4
Rhododendron	Rhododendron ponticum	3
Herb-Robert	Geranium robertianum	5
Common Dog-Violet	Viola riviniana	5
Red Campion	Silene dioica	3
Dog's Mercury	Mercurialis perennis	3
Male-Fern	Dryopteris filix-mas	4
Snowberry	Symphoricarpos albus	4
Downy Birch	Betula pubescens	3
Tufted Hair-Grass	Deschampsia cespitosa	3
Cleavers	Galium aparine	5
Elder	Sambucus nigra	4
Swan's-Neck Thyme-Moss	Mnium hornum	7
Rough-Stalked Feather-Moss	Brachythecium rutabulum	5

Table 285: Site 68, Habitat 2: Survey Details

Site Name	Site 68 Habitat 2
Date	14/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Young plantation woodland.
Management Notes	No current management apparent.

Condition Notes	Reasonable species diversity and ground flora although understory not developed. Very occasional fallen dead wood.
Slope	Flat
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	N/A
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	90
Understory/Shrub Layer height (m)	Negligible
Understorey Cover (%)	<5
Field Layer height (mean, m)	0.2
Field Cover (%)	60
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	40
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	10
Other Notes	
BNG Habitat	Other woodland w1g
BNG Condition	Moderate
NVC Community	No NVC community for plantation woodland.

Table 286: Site 68, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
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1	50x50	4x4
Grid Reference (X, Y)	416228 , 508614	
Species List		
Common Name	Scientific Name	Domin Scale
Hawthorn	Crataegus monogyna	7
Rowan	Sorbus aucuparia	3
Cock's-Foot	Dactylis glomerata	4
False Oat-Grass	Arrhenatherum elatius	4
Tamarisk Moss	Thuidium tamariscinum	5
Sweet Vernal-Grass	Anthoxanthum odoratum	3
Common Dog-Violet	Viola riviniana	7
Tufted Hair-Grass	Deschampsia cespitosa	3
Yorkshire-Fog	Holcus lanatus	7
Rough Meadow-Grass	Poa trivialis	5
Bramble	Rubus fruticosus agg.	4
Raspberry	Rubus idaeus	4
Cleavers	Galium aparine	4
Ash	Fraxinus excelsior	4
Enchanter's Nightshade	Circaea lutetiana	3
Marsh Thistle	Cirsium palustre	3
Dog's Mercury	Mercurialis perennis	3
Sycamore	Acer pseudoplatanus	4
Tormentil	Potentilla erecta	3

Table 287: Site 68, Habitat 3: Survey Details

Site Name	Site 68 Habitat 3
Date	14/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid

Site/Vegetation Description	Small area of open, damp grassland/mire habitat.
Management Notes	No current management apparent.
Condition Notes	Good species diversity and greatly adds interest to adjacent plantation woodland.
Slope	Flat to gently sloping to the south.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	N/A
Canopy Layer Height (mean, m)	15
Canopy Cover (%)	90
Understory/Shrub Layer height (m)	Negligible
Understorey Cover (%)	<5
Field Layer height (mean, m)	0.2
Field Cover (%)	60
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	40
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	10

Other Notes	
BNG Habitat	Lowland fen f2a
BNG Condition	Moderate
NVC Community	Rather ill-defined M23-type.

Table 288: Site 68, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	416156 , 508593	
Species List		
Common Name	Scientific Name	Domin Scale
Marsh Horsetail	<i>Equisetum palustre</i>	3
Marsh Thistle	<i>Cirsium palustre</i>	4
Marsh-Bedstraw	<i>Galium palustre</i>	4
Soft-Rush	<i>Juncus effusus</i>	5
Hard Rush	<i>Juncus inflexus</i>	3
Compact Rush	<i>Juncus conglomeratus</i>	5
Raspberry	<i>Rubus idaeus</i>	4
Lesser Stitchwort	<i>Stellaria graminea</i>	4
Greater Bird's-Foot-Trefoil	<i>Lotus pedunculatus</i>	5
Common Hemp-Nettle	<i>Galeopsis tetrahit</i>	3
Common Sorrel	<i>Rumex acetosa</i>	5
Field Forget-me-Not	<i>Myosotis arvensis</i>	3
Tufted Hair-grass	<i>Deschampsia cespitosa</i>	7
Yorkshire-fog	<i>Holcus lanatus</i>	5
Common Bent	<i>Agrostis capillaris</i>	4
False Oat-Grass	<i>Arrhenatherum elatius</i>	3
Marsh Willowherb	<i>Epilobium palustre</i>	3
American Willowherb	<i>Epilobium ciliatum</i>	3
Common Nettle	<i>Urtica dioica</i>	3

Rhododendron	Rhododendron ponticum	3
Male-Fern	Dryopteris filix-mas	3
Wood Dock	Rumex sanguineus	4
Pointed Spear-Moss	Calliergonella cuspidata	5
Oval Sedge	Carex leporina	3
Grey Willow	Salix cinerea	3

Table 289: Site 69, Habitat 1: Survey Details

Site Name	Site 69
Date	15/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Semi-mature broad-leaved plantation woodland with a good mix of species. There is a small artificial pond at NY 77976 15022 (the water level was low, turbidity was high and there was moderate cover of common duckweed and filamentous algae; <i>Myriophyllum</i> species present; marginal and emergent vegetation not well developed).
Management Notes	No current management apparent for the woodland areas.
Condition Notes	A nice example because tree species diversity is rich and composition is appropriate for the area. However, age structure is limited, the canopy is closed, an understory is lacking, ground flora is species poor and there is very little deadwood (because of young age).
Slope	Site runs along a shallow river valley so slope varies, to flat.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A

Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	10
Canopy Cover (%)	95
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	Negligible
Field Layer height (mean, m)	0.4
Field Cover (%)	95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	<5
Other Notes	NVC not yet appropriate because it is a young plantation. However, should develop towards W9-type woodland.
BNG Habitat	Other Lowland mixed deciduous woodland w1f7, 36.
BNG Condition	Moderate.
NVC Community	N/A

Table 290: Site 69, Habitat1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	377940, 514977	
Species List		
Common Name	Scientific Name	Domin Scale
Ash	Fraxinus excelsior	4
Silver Birch	Betula pendula	5
Hazel	Corylus avellana	5
Dogwood	Cornus sanguinea	3

Rowan	<i>Sorbus aucuparia</i>	4
Sessile Oak	<i>Quercus petraea</i>	4
Hawthorn	<i>Crataegus monogyna</i>	3
Field Horsetail	<i>Equisetum arvense</i>	4
False Oat-Grass	<i>Arrhenatherum elatius</i>	4
Common Nettle	<i>Urtica dioica</i>	5
Tufted Hair-Grass	<i>Deschampsia cespitosa</i>	3
White Poplar	<i>Populus alba</i>	3
Rough Meadow-Grass	<i>Poa trivialis</i>	5
Yorkshire-Fog	<i>Holcus lanatus</i>	4
Downy Birch	<i>Betula pubescens</i>	3
Crab Apple	<i>Malus sylvestris</i>	3

Table 291: Site 69, Habitat 2: Survey Details

Site Name	Site 69
Date	15/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	Neutral grassland running through the centre of the site alongside the small stream.
Management Notes	Grazed.
Condition Notes	
Slope	Site runs along a shallow river valley so slope varies, to flat.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A

Peat Depth (if present, cm)	N/A
Broad Habitat	Grassland
Canopy Layer Height (mean, m)	10
Canopy Cover (%)	95
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	Negligible
Field Layer height (mean, m)	0.4
Field Cover (%)	95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	<5
Other Notes	Habitat 2 is not botanically interesting and is MG1-type grassland.
BNG Habitat	Arrhenatherum neutral grassland g3c5.
BNG Condition	Moderate.
NVC Community	N/A

Table 292: Site 69, Habitat 2: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	2x2	2x2
Grid Reference (X, Y)	377833, 515019	
Species List		
Common Name	Scientific Name	Domin Scale
Yorkshire-fog	Holcus lanatus	7
Cock's-Foot	Dactylis glomerata	4
Tufted Hair-grass	Deschampsia cespitosa	3
Reed Canary-Grass	Phalaris arundinacea	4
False Oat-Grass	Arrhenatherum elatius	4

Creeping Bent	<i>Agrostis stolonifera</i>	5
Soft-Rush	<i>Juncus effusus</i>	4
White Clover	<i>Trifolium repens</i>	5
Meadow Buttercup	<i>Ranunculus acris</i>	5
Hedge Woundwort	<i>Stachys sylvatica</i>	4
Common Nettle	<i>Urtica dioica</i>	5
Creeping Thistle	<i>Cirsium arvense</i>	5
Broad-leaved Dock	<i>Rumex obtusifolius</i>	5
Common Ragwort	<i>Senecio jacobaea</i>	4
Rough-stalked feather-moss	<i>Brachythecium rutabulum</i>	5
Hogweed	<i>Heracleum sphondylium</i>	4
Lesser Burdock	<i>Arctium minus</i>	4
Cleavers	<i>Galium aparine</i>	4
Pointed Spear-Moss	<i>Caliergonella cuspidata</i>	5

Table 293: Site 69, Habitat 3: Survey Details

Site Name	Site 69
Date	15/07/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (Valid/Adverse conditions)	Valid
Site/Vegetation Description	A narrow strip/tree line of mature beech and sessile oak to the northwest.
Management Notes	No current management apparent for the woodland areas.
Condition Notes	Habitat 3 is in good condition.

Slope	Site runs along a shallow river valley so slope varies, to flat.
Aspect	N/A
Soil pH	N/A
Soil Depth (cm)	N/A
Peat present?	N/A
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland
Canopy Layer Height (mean, m)	10
Canopy Cover (%)	95
Understory/Shrub Layer height (m)	N/A
Understorey Cover (%)	Negligible
Field Layer height (mean, m)	0.4
Field Cover (%)	95
Ground Layer height (above ground mean, m)	Negligible
Ground Cover (%)	Negligible
Leaf Litter	Negligible
Thatch	N/A
Bare Ground	<5
Other Notes	Habitat 3 is limited in extent but is Priority Habitat but not really well defined in terms of NVC.
BNG Habitat	Lowland mixed deciduous woodland w1f.
BNG Condition	Good.
NVC Community	N/A

Table 294: Site 69, Habitat 3: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	377783, 515039	
Species List		
Common Name	Scientific Name	Domin Scale

Beech	Fagus sylvatica	5
Sessile Oak	Quercus petraea	3
Ash	Fraxinus excelsior	4
Hazel	Corylus avellana	4

Table 295: Site 71, Habitat 1: Survey Details

Site Name	Site 71
Date	29/06/2022
Surveyors	Dermot McKee, Natalie Feak
Weather Conditions (temp (°C), wind, cloud, rain)	17°C, BF3, patchy cloud, dry
Site/Vegetation Description	Woodland/line of semi-mature/mature trees along left and right bank of River Eamont. Not recognizable NVC community. Trees along right bank generally older and more mature.
Management Notes	No current management apparent.
Condition Notes	Lack of riparian ground flora. Lack of dead wood. Lack of diverse age-structure.
Slope	Flat
Aspect	N/A
Soil pH	Neutral
Soil Depth (cm)	N/A
Peat present?	No
Peat Depth (if present, cm)	N/A
Broad Habitat	Woodland/Line of Trees
Canopy Layer Height (mean, m)	15 m
Canopy Cover (%)	N/A
Understory/Shrub Layer height (m)	Negligible
Field Layer height (mean, m)	0.4

Field Cover (%)	60-100
Ground Layer height (above ground mean, m)	N/A
Ground Cover (%)	N/A
Leaf Litter	Negligible
Thatch	Negligible
Bare Ground	<5%
Other Notes	Not Priority Habitat
BNG Habitat	Other woodland; broadleaved w1g, and line of trees w1g6 (left bank)
BNG Condition	Poor
NVC Community	Not a recognizable NVC community

Table 296: Site 71, Habitat 1: Quadrat 1

Quadrat Number	Quadrat Size (Overall)	Quadrat Size (Field Layer)
1	50x50	4x4
Grid Reference (X, Y)	351968, 528703	
Species List		
Common Name	Scientific Name	Domin Scale
Sycamore	<i>Acer pseudoplatanus</i>	5
Lime	<i>Tilia x europaea</i>	4
Wych elm	<i>Ulmus glabra</i>	4
Ash	<i>Fraxinus excelsior</i>	4
Alder	<i>Alnus glutinosa</i>	5
Bramble	<i>Rubus fruticosus</i> agg.	5
Cleavers	<i>Galium aparine</i>	5
Herb-Robert	<i>Geranium robertianum</i>	5
Wood avens	<i>Geum urbanum</i>	4
Red campion	<i>Silene dioica</i>	4
Hogweed	<i>Heracleum sphondylium</i>	5
Common nettle	<i>Urtica dioica</i>	5

Reed canary-grass	<i>Phalaris arundinacea</i>	4
Himalayan balsam	<i>Impatiens glandulifera</i>	4
False oat-grass	<i>Arrhenatherum elatius</i>	5