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Phase 2 Botanical Survey: UKHab Survey/NVC Survey/Important Plants Survey

Survey site address:
Brunninghams Farm, Heath Ride, Finchampstead, Wokingham, RG40 3QJ

Survey date:
23rd June 2025

Project:
The report informs a planning application. The project is described as: "Proposed erection of 8 no. detached dwellings with associated access, parking and landscaping, following demolition of the existing buildings."

LPA:
Wokingham Borough Council

Summary of Results and Recommendations

Important Habitats

The grassland on site was considered to be of no specific conservation value but has value at the **LOCAL** level. Losses will contribute to net losses of biodiversity.

Recommendations

Further work is required to fulfil legislative or wider planning obligations;

- Precautionary measures of vegetation clearance methodology and construction site management are detailed for retained habitats and species. A **Construction Ecological Management Plan (CEMP)** is likely to be requested as a condition of planning consent.
- The development will need to achieve a **10% Biodiversity Net Gain** to offset habitat losses, preferentially using onsite or adjacent means, supported by a 30 year, legally binding **Habitat Management and Monitoring Plan,** with offsite (per habitat unit) financial contributions.
    - If 10% BNG is not passible **bespoke LPA agreement** may be required

Further detailed information including conclusions, justifications and opportunities for enhancement, is provided within the body of the report.

Version control

Status	Issue	Name	Date
Draft	0.1	Nicholas Smith Consultant Ecologist	27/07/2025
Review	0.2	Fay Brotherhood BSc (Hons) MSc, FISC4, Senior Ecologist and Botanical Specialist	28/07/2025
Final	1.0	Nicholas Smith Consultant Ecologist	28/07/2025

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1.0 Introduction

<table>
<tr><th colspan="3">Background</th></tr>
<tr><td>Project Context</td><td colspan="2">Arbtech Consultancy Ltd was instructed to undertake a Phase 2 Botanical Survey: Important Plants Survey variously referred to as the; “survey, report”). Project, site and client details are named on the title page. A plan of the proposal will be provided in Appendix 1 (when available if not included).</td></tr>
<tr><td>Previous Reports</td><td colspan="2">Previous ecological reports have been produced for the site, with content relevant to the report. These include the following;

• Preliminary Ecological Appraisal and Roost Assessment (Arbtech, April 2025). The PEA assessed the grassland on site to be other neutral grassland with areas dominated by bracken. Encroachment of bramble, gorse and tree saplings were noted within the habitat parcel. The north of the site was observed to be waterlogged.</td></tr>
<tr><td>Rationale for Survey</td><td colspan="2">Due to the site

1. Not being carried out within the optimal season for surveying the vegetation type

A detailed Phase 2 Botanical survey by a suitably experienced (FISC4+ or equivalent) botanist was required in the form of a
• Combined NVC, UKHabs & Important Species Survey

Relevant information from the previous survey work is incorporated within the report.</td></tr>
<tr><td></td><td colspan="2">The survey aims via a field visit to (within the limits of proportionality, practicality and the chosen sampling method), to achieve the following;

<table>
<tr><th colspan="2">Task</th><th>Aim</th></tr>
<tr><td>1</td><td>Collect a full species list</td><td>List all species on site, noting Important Plants and axiophytes[1] to Determine the presence or likely absence of Important Species. These are defined as any plant species, subspecies or hybrid which is:

• Red-listed in England or Great Britain[2]
• Occurring at fewer than 100 hectad[3] localities at country or GB level (country-scarce / nationally scarce)
• Occurring at fewer than 15 hectad localities at country or GB level (country-rare/nationally rare)
• Endemic</td></tr>
</table>
</td></tr>
</table>

[1] Axiophytes = worthy plants”. Indicators of habitat considered important for conservation, such as ancient woodlands, clear water and species-rich meadows.

[2] Following Stroh et al, 2014 A Vascular Plant Red-list for England. Available at: https://bsbi.org/wp content/uploads/dlm_uploads/England_Red_List_1.pdf

[3] Hectad records include records within 10x10km squares. Also see www.bsbi.org/maps

			• Scarce or rare at regional, county or local level[4] • Listed under s.41 National Environment and Rural Communities Act 2006[5]; and/or • Listed under Schedule 5 Conservation of Habitats and Species Regulations 2017 (as amended); and/or • Listed under Schedule 8 Wildlife & Countryside Act 1981 (as amended).
	2	**Classify the Habitat**	Fully (insofar as possible) classify the surveyed habitat assisted by both UKHabs and National Vegetation Classification coding.
	3	**Assess Importance**	Identify the presence of any **Important Habitats** and their importance at a geographical level **(LOCAL, REGIONAL, NATIONAL, INTERNATIONAL),** those being; • Listed on local Biodiversity Local Biodiversity Action Plan/list • Habitats-Habitats of Principal Importance (e.g. those under S.41 NERC Act) • Annex 1 Habitats Directive habitats (International importance) • Irreplaceable habitats, which once lost cannot be recreated (Technical note T3 of CIEEM et al, 2019, National Planning Policy Framework 2023, Irreplaceable Habitat Regulations 2024) (International Importance) • Other important (and potentially irreplaceable) habitats such as waxcap grasslands (Local to international importance) • Meets local/county wildlife site criteria.
	4	**Determine the presence or likely absence of Important Assemblages**	Defined as Ecologically Coherent Assemblages associated with specific habitats or conditions and considered to be of high conservation value, up to international importance. Usually concerns the following; • Fungi[6] (e.g Internationally Important = (Grassland fungi (e.g Waxcap (CHEGD+) grasslands), Lignicolous saprotrophic fungi on beech and oak (beech and oak deadwood fungi), Montane heath mycorrhizal fungi, Fungi of Atlantic hazel and Atlantic oakwood + others) • Lichen[7] (Annex 1 assemblages - Temperate rainforest, Hyperoceanic acid montane rock/soils, Southern oceanic woodland assemblage + others)

[4] This was ascertained through review of BSBI and British Bryological Society mapped plant distributions.
[5] Including species which are a conservation priority within England.
[6] Bosanquet, S.D.S., Ainsworth, A.M., Cooch, S.P., Genney, D.R, & Wilkins, T.C. (2018). Guidelines for the Selection of Biological SSSIs. Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 14 Non-lichenised Fungi. Joint Nature Conservation Committee, Peterborough.
[7] Sanderson, N. A., Wilkins, T.C., Bosanquet, S.D.S and Genney, D.R. 2018. Guidelines for the Selection of Biological SSSIs. Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 13 Lichens and associated microfungi. Joint Nature Conservation Committee, Peterborough

	This approach aligns with the characterisation of Important Ecological Features as defined by the Chartered Institute of Ecology and Environmental Management (CIEEM) within standing Ecological Impact Assessment (EcIA) guidelines[8]. The conclusions drawn from the assessment will facilitate the following assessments of; 1) Conservation value of the site. 2) Impacts and their magnitude. 3) Recommendations for compensation, mitigation and/or enhancement.

[8] Chartered Institute of Ecology and Environmental Management (CIEEM)., 2022. Guidelines for Ecological Impact Assessment in the UK and Ireland. Available at: https://cieem.net/wp-content/uploads/2018/08/ECIA Guidelines-2018-Terrestrial-Freshwater-Coastal-and-Marine-V1.2-April-22-Compressed.pdf

2.0 Surveyor and Limitations

Surveyor Experience and Qualifications

The site survey was undertaken by Nicholas Smith, Consultant Ecologist. Nick has been a practicing Ecologist for two years and has extensive experience conducting Preliminary Ecological Appraisals (PEA) and habitat condition assessments. He is accredited under a Class 2 bat licence and a Class 1 great crested newt licence. He has been an amateur botanist for approximately three years and has attended numerous training courses covering botanical surveying, plant identification and NVC surveying.

Input and supervision was provided by Fay Brotherhood BSc, (Hons) MSc, FISC 4, who is a botanical and habitats specialist with qualifications in Countryside Management, Wildlife Conservation and Environmental Management. Professionally, as both a Senior Ecological Consultant and a Ranger she has 8 years of professional survey experience and over 20 years of amateur experience in the identification of plants, fungi, and more recently, lichens and bryophytes. She actively records in Hertfordshire and her home county of Leicestershire and is a member of the British Botanical Society of Britain and Ireland (BSBI) and the British Lichen Society (BLS).

Date of survey/s	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
23/06/2025	22	40	25	20	None

Limitations

All limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

No Limitations	The PEA identified two areas of neutral grassland on site, one area in the north and one area in the south. However, upon assessment, the area within the south is considered to be a clearing within the bordering woodland and therefore should be classified as part of the woodland. The southern area of grassland was therefore not assessed within this report.
Survey Effort	The assessment is based on knowledge of onsite habitat dynamics, wider landscape ecology and individual species ecology and biology as currently understood and whilst every effort has been made to describe the baseline botanical conditions within the survey area, and evaluate these features, this report cannot provide a complete characterisation of the site as this can only be provided via a number of visits carried out over the year to capture late or earlier emerging plant species that may not have been visible at the time of the survey. is not considered a significant limitation, as conditions on site and from previous surveys are considered to provide an adequate overview of the sites value.
Biological Records Data (BRD)	Whilst planning policy and professional standards usually call for the inclusion of biological records data (BRD), no data has yet been obtained. • However, in light of data collected and impact assessments made on the ground during the site visit, it is not considered that the inclusion of data would add particular weight to or alter any of the conclusions or recommendations within.
Desk Study Resources	Data gleaned from the desk study is based upon information provided by third parties. This has not been independently verified by Arbtech Consulting Limited. Publicly data from British Geological Society and the Landis Soilscapes App is of low resolution and ground truthing may be required to inform any required habitat creation works. Data on Magic cannot be relied upon to capture all Important Habitats, especially where they occur at the small and fragmentary scale.

Species-complexes and hybrids	Certain taxa comprise 'micro-species' within larger "aggregates" the identification of which requires highly specialised skills and knowledge. Dandelions *Taraxacum, Hamata, Erythrosperma, Ruderalia, Celtica* agg, hawkweeds *Hieracium* spp, willows and sallows *Salix* spp. and brambles *Rubus* agg are specific examples. In addition, fungal taxonomy is in constant flux and new species and sub-species as well as varieties of named species are continually being named. The skill levels required to divide these are high and this means some subspecies and varieties may have been missed. The survey protocol followed here normally records ambiguous species requiring of specialist knowledge to genus level only unless subspecies can be easily divided. Failure to achieve certainty is highlighted in the report where it is deemed this carries a risk of failing to accurately classify a habitat or record a notable species.

3.0 Desk Study

Results & Conclusions A full desk study is included within the PEA and for brevity, is not repeated here. Relevant findings are incorporated where required. **Location and Landscape plan in Appendix 2**	
Landscape Assessment	
Site Context	***National Grid Reference (central point)*** SU80853 64430 ***Site Area*** Approximately 1.777ha ***Site Description & Landscape Analysis*** The site comprises one dwelling (B1), associated outbuildings (B2-B4), sealed surface, other neutral grassland* with scattered trees and wet woodland with a ditch, bracken, and bramble scrub. The site is surrounded by rural housing with gardens, priority deciduous woodland, and lowland heathland in all directions. The wider landscape is predominantly comprised of rural housing with gardens, priority deciduous woodland, lowland heathland, arable farmland and grazing pasture, and ponds. ***Site History, Management and Land Uses*** The habitats onsite have been unmanaged for approximately 10 years, with previous land use comprising of a pig farm. Historical maps dating back to the 1800s indicate that the site was previously covered by woodland.
Environmental Context	***Geology and Soils*** The site resides above the Windlesham Formation. The Windlesham Formation is comprised of bioturbated dark green to brown, fine- to medium-grained sands with sand-sized glauconite grains, silts and white, yellow, or brown clay, overlain by organic dark grey clay with lenticles of fine sand, and then by glauconitic sand and sandy clayey silt. There are also occasional layers of flint gravel, and a prominent gravel bed occurs at the top. The site is comprised of Soilscape 15 described as 'naturally wet, very acid sandy and loamy soils'. ***Hydrology*** The site lies within the Thames River Basin District and the areas drainage is primarily managed by a networks of small rivers, brooks and drainage ditches. The

	area is part of a lowland clay catchment, meaning water naturally drains slowly due to impermeable soils and low gradients. The site is bounded by wet ditches, which suggests the site has a **high water table** and **poor drainage.** The soils drain to shallow groundwater, which explains the waterlogged conditions over much of the site. ***Aspect & Topography*** The site also slopes downwards from the southern boundary towards the northern boundary, as evident by the larger areas of waterlogged grassland in the northern sections.
Local Designations	**Designated Sites Summary** • The site is not subject to any National Statutory Designation. • The presence of Non-Statutory Designated Sites within 2km of the site cannot be established without data from the local Biological Records Centre. • There are X1 Statutory Designated Site within 2km of the site. These contain a range of habitats including woodland and heathland. ***National Network Sites*** The nearest National Network Site/International importance (SAC, SPA, Ramsar), is 3.3km southeast of the site (Thames Basins Heaths Special Protection Area SAC). The site is unlikely to be contextually related to the nearest (3.3km southeast) by virtue due to the lack of habitat congruity . This is due to the site being a neutral grassland and the designated site hosting heathland habitat. ***Important Plant Areas*** The site is not close to an Important Plant Area. The site is unlikely to be contextually related to the nearest **(Thames Basin Heaths IPA)** due to lack of congruity between the species assemblages it is designated for and those likely to be present on site. ***Summarised Botanical Value Map*** This categorises monads (1 x 1 km grid squares) as being of Low, Moderate or High botanical value according to the presence of Rare, Scarce and Threatened (RST) plant species and/or the proportion of Priority Habitat Positive Indicator (PHPI) species (axiophytes). This was developed as a way of targeting appropriate areas for tree planting (Natural England, 2023) but can be used to assess the likelihood an area may host Important Species and Assemblages. The site is in an area of **LOW** botanical value indicating that there is a decreased likelihood of important species and assemblages being present locally.
Biological Records Data	The BRD has not yet been purchased. BRD will be required to make a full assessment of this group.

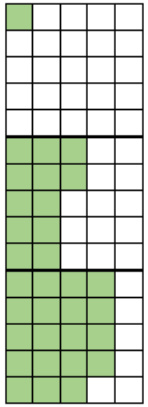
4.0 Field Survey Methodology

Methodology	
Data Collection	Species data was collected using a data collection method of the surveyors choice to collate photographs, grid reference (for quadrats and important species locations) and notes on habitat, relative abundance, relationships with other plants, abiotic variables (e.g. soil, aspect, topography) and other comments of note. Quadrat data was collected using an excel sheet on the surveyors tablet or phone which was saved to a Cloud for later processing.
Species Identification	Species were identified where possible the field, supported by the use of a hand lens and/or macro photography. Where not readily identifiable in the field, descriptive location notes were made upon the field map and samples were taken via photographs (using zoom, manual focus and any light corrective factors to improve colour capture) and illustrating all identifying features such as leaf junctures, undersides, hairs, spine shapes etc). Physical samples were taken where required in line with reference to codes of conduct for sample collection outlined in Rose et al (2006) and the Botanical Society for Britain and Ireland Code of Conduct and with respect to the Wildlife and Countryside Act 1981, which stipulates that landowner permission is required before any plant may be uprooted. Samples were identified at the desk using hand lens or microscope where necessary. Identification of plants is made primarily via books, with internet resource cross referencing using reputable sites (resources used are listed within the bibliography). Verification by more experienced botanists or the relevant BSBI referee was sought where required. Where uncertainty remains, the species are recorded to genus level. Any implications for habitat classification or the risk of missing an Important Species are noted in the report as a limitation. Under scenarios of unresolvable uncertainty, the precautionary principle is applied.
Field Survey Methodology	**NVC/UKHabs Methodology** The site was sampled using a standardised x5 quadrat methodology as per **the National Vegetation Classification User Manual (Rodwell, 2006).** The methodology was adapted to the site and surveys individual circumstances and needs, and where appropriate used elements of **the UKHabs user manual (UKHabs Working Group, 2018) and Relevé method (single quadrat or relevé plot (Minnesota Department of Natural Resources. 2007).** An NVC survey aims to capture all plants present in similar (homogeneous) stands of plant composition and structure. In grassland, the majority of these plants are flowering plants, grasses, rushes and sedges, but some identification of mosses may be required for particular communities of plants. The method does not categorise the transition between vegetation types particularly well, and it is advised not to be used in these situations. The composition and structure of plant communities present in similar (homogeneous) stands of grassland was assessed, to include flowering plants, grasses, rushes and sedges and mosses. A brief walk-over of the habitat was undertaken to identify both similar and differing vegetation stands prior to commencing the survey, supported by the predictions made by desk study data. If significantly different communities were found to be present, this information was used to identify distinct sampling areas for quadrat placement.

DOMIN scale		Braun-Blanquet scale	
Cover	**Scale**	**Cover**	**Scale**
91-100%	10	76 -100%	5
76-90%	9	51-75%	4
51-75%	8	26-50%	3
34-50%	7	6-25%	2
26-33%	6	1-5%	1
11-25%	5	<1%	*
4-10%	4		
< 4% (many individuals)	3		
< 4% (several individuals)	2		
< 4% (few individuals)	1		

Table: DOMIN and Braun-Blanquet Scale

Percentage covers were estimated by imagining the plant as grouped into a corner or lined against one edge of the quadrat, in terms of the number of squares filled by the plant on a 5 x 5 grid with each square representing 4% as illustrated in the table below.



4% of a quadrat
DOMIN = 4
Braun-Blanquet = 1*

48% of a quadrat
DOMIN = 7
Braun-Blanquet = 3

76% of a quadrat
DOMIN = 9
Braun-Blanquet = 5

*Below this = 1-3 on DOMIN or 1 on Braun-Blanquet

Table: Examples of percentage estimations

Species per m^2 Scores

The quadrats/transects are also used to gain sp/m2 scores, allowing the compilation of a range and average. It should be noted that UKHabs operates under $1m^2$ methodology, but Rodwell has stated that quadrats under $2m^2$ are not sufficient for capturing vegetation data. As such, $2m^2$ quadrats are used to ensure results are

	transferable to NVC.
Important Plants Survey	Transects over all habitats were undertaken at a maximum distance of 20m apart. Where important species were identified, abundance and distributional data was captured and mapped. This was tailored to each individual species and was dependent upon a variety of factors, such as growth form and overall extent. A full walkover of the site was conducted in an effort to capture as full a species list as is practically possible within the limitations of the survey effort and any timing caveats. Particular attention was paid during the walkover to structural elements such embankments, boundaries, slopes, areas of short, grazed grass, areas of hard standing etc and transitional zones, which would have been avoided during NVC sampling but in which additional species adapted to differing conditions may be present. During the survey, habitats were assessed for their suitability for any important species which may not be present. If anywere identified, their presence, locations and growing conditions were recorded. Notes were made on overall relative abundance (where appropriate) via DAFOR (Dominant, Abundant, Frequent, Occasional, Rare) scores and on any other ecological incidental observations.
Data Processing Methodology The below text details how the collected data was handled post survey in the formulation of any subsequent conclusions.	
Plants	**UKHabs & NVC** The community on site was classified via methodologies and habitat descriptions set out in the National Vegetation Classification (Rodwell, 1998; Rodwell 2006), and the relevant British Plant Communities Volume (Rodwell, various dates). It was then further classified using UKHabs methodology (UKHabs Working Group, 2018) using UK Habitat Classification Version 2.01 (UKHab Ltd, 2023). Use of the species lists within this was augmented by the supplementary species list and descriptions for cryptic UKHab grasslands document developed by Joshua Styles MSc AMRSB MCIEEM FISC Level 6. The collected quadrat/transect/releve data was compiled into a Floristic Data Table based on frequency and coverage. Frequency (as denoted by Roman numerals) refers to the number of times a species is found in the quadrats. The descriptive measure of frequency refers to constancy or rarity of species throughout the community. Using the DOMIN (or Braun-Blanquet) scale, species were ordered from greatest coverage and frequency to least coverage and frequency, in the understanding that NVC communities tend to be defined by their constant species.

NVC Frequency Scores

Frequency class	Percentage of quadrats	Descriptive measure
I	1 - 20% (1 quadrat of 3 or 5)	Scarce
II	21- 40%	Occasional
III	41 – 60%	Frequent

IV	61 – 80%	Constant
V	81 – 100%	Constant

Table: Frequency scores and transpositions

Nomenclature follows that set out in Stace (2019). Nomenclature for other taxa (e.g bryophytes, lichens) use relevant internet resources as taxonomical changes are frequent within these groups.

Analysis was made preferentially by manual means using the keys and descriptions within the appropriate volume of Rodwell's British Plant Communities, which is recommended by the author himself as the preferred means of analysis. This is because vegetative communities rarely behave in a predictably ordered manner and assigning communities via computer program can be impossible where communities exhibit transitional elements, which many do. The software program. Modular Analysis of Vegetation Information System (MAVIS) (Smart, 2000) from the Centre of Ecology and Hydrology was used as a supporting resource.

When used, the data was entered into the selected programme. Where the result was ambiguous or otherwise suspect, the analysis was ran a second time with all ruderals, shrubs and tree seedlings removed. The rational for this is based on the final, open vegetation communities (OV) part of the classification for which the presence of such species may provide a false output for the community by overriding other vegetation.

Post analysis, the potential community outputs were interpreted critically and assessed for good match using the relevant NVC handbooks and any other context providing supporting resources, taking into account any additional factors and variables that may impact final assessment. The output of MAVIS includes a series of "confidence scores". It is generally considered that 50% is the threshold for high confidence, but realistically the output rarely produces high confidence results, with the range of lower confidence options often reflecting the transitionary character of the majority of real world habitats. As such, these subsidiary options should be explored alongside the top confidence options to identify where the community may exhibit elements of related communities.

Analysis was supplemented by use of the relevant UKHabs literature.

5.0 Field Survey Result & Habitat Classification/Condition Assessment

Community Characterisation/Condition Assessment *The overall site species list is presented in Appendix 5. The below tables provide detail and justification for final UKHabs/NVC community classifications as well as assigning compliance with any criteria for Designated and Non Designated Sites or Priority or other Important Habitats. The data and floristic tables informing this is available in a separate spreadsheet, which can be made available on request.*	
Grassland Community Classification	
Summary Description	**Habitat Description** **Northern Grassland Community Description** **Constant/Dominant (NVC Constancy Class IV/V)** **Grasses** – **(V) Y**orkshire fog *Holcus lantus* **Forbs** – **(V)** marsh thistle *Cirsium palustre* **Frequent (NVC Constancy Class III)** **Grasses –** common bent *Agrostis capillaris,* cocksfoot *Dactylis glomerata,* marsh foxtail *Alopecurus geniculatus* **Occasional (NVC Constancy Class II)** **Grasses –** rough meadow grass *Poa trivialis*, meadow foxtail *Alopecurus pratensis,* common couch *Elymus repens,* false oat grass *Arrhenatherum elatius,* **Rush –** soft rush *Juncus effusus* **Forbs –** lesser stitchwort *Stellaria graminea*, hairy tare *Vicia hirsuta,* white clover *Trifolium repens,* **Rare (NVC Constancy Class I)** **Grasses –** sheeps fescue *Festuca ovina*, perennial ryegrass *Lolium perenne* **Sedge –** remote sedge *Carex remota,* pendulous sedge *Carex pendula* **Forbs –** birds foot trefoil *Lotus corniculatus,* curled dock *Rumex crispus,* ragwort *Jacobaea vulgaris*, wood avens *Geum urbanum*, common nettle *Urtica dioica,* cut-leaf geramium *Geranium dissectum,* broad-leaved willowherb *Epilobium montanum,* smooth tare *Vicia tetrasperma*, lesser trefoil *Trifolium dubium*
Summary Analysis	The site comprised 1 habitat parcel. The location is mapped in the habitat map in **Appendix 1;** **Species Richness** There were at least 18 species of vascular plants occurring at 16sp per/2m^2 in grassland (the proposed development area).

The table below assesses the species richness of the parcels on site. The grassland on site contained quadrats qualifying as species rich (15sp/m^2), with the highest score being 16.

Parcel	Description	#spp	Sp/m^2	range	Avg sp/m^2	Spp rich (15 sp/m^2)
1	Northern grassland	18	12-16	14, 16	15	Y

NVC

MAVIS Outputs

MAVIS produced the following outputs, All results returned low confidence scores (substantially under 50). This suggests an unstable community containing elements of all. The results cannot be accepted without further analysis.

Parcel 1 (Development Area)
NVC: MG9 41.37
NVC: MG9b 39.89
NVC: MG7 38.83
NVC: MG6a 38.10
NVC: MG9a 37.35
NVC: MG10 36.40
NVC: MG10a 36.20
NVC: MG1c 35.87
NVC: MG1b 35.68
NVC: MG6 35.41

Table: MAVIS runs

Discussion

The grassland on site does not appear to fit into an NVC category and is likely in a transitional phase. Due to the lack of management on site, the parcel has become dominated by marsh thistle which has outcompeted grass species and therefore there is no clear grass community. The top score for the site was MG9 *Holcus lanatus-Deschampsia cespitosa* grassland, however due to the absence of *Deschampsia cespitosa,* the grassland does not comply with this community. MG7 *Lolium perenne* leys and related grasslands was the next result for the site which is unlikely to characterise the grassland on site due to the lack of management and therefore artificial input on the parcel.

The NVC community MG10 *Holcus lanatus-Juncus effusus* rush-pasture could have associations with the habitat parcel with the dominant *Holcus lanatus and* occasional *Juncus effusus.* Other grasses associated with the habitat include *Poa trivialis, Lolium perenne, Alopecurus geniculatus,* all of which were present

within the sward. Forb species associated with this grassland include frequent *Ranunculus repens* and *R. acris* are frequent and sometimes abundant with generally smaller amounts of *Cardamine pratensis,* ***Trifolium repens****, Rumex acetosa, Plantago lanceolata, Potentilla anserina* and *Cerastium fontanum.* Only ***Trifolium repens*** was recorded within the sward. However, due to the lack of management and the tall sward, forbs species are likely to be outcompeted.

Due to the large amounts of scrub surrounding the habitat parcel and the tall forbs present within the sward, the grassland is likely transitioning to a scrub habitat due to the lack of management on site.

UK Habs

UKHabs

Using UKHabs coding and habitat descriptions (UK Habs Ltd, 2023), the following assesses the parcels conformation or lack thereof with higher distinctiveness/ **Section 41 Habitat of Principle Importance** acid, neutral and calcareous grasslands and lowland meadow classifications.

To qualify under level 4 high distinctiveness grassland classifications **g1a lowland dry acid grassland g2a Lowland calcareous grassland** or **g3a lowland meadow,** the community would need to adhere to the following criteria;

Meet at least two of the following;

1. >15 sp/m^2 (>12 for acid grassland) (including grasses and excluding bryophytes). **FAIL**
2. >30% cover of broadleaved herbs and sedges, excluding *Trifolium repens, Ranunculus repens* and injurious weeds. **PASS**
3. <10% cover of rye grasses and *Trifolium repens.* **PASS**

AND EITHER 4 OR MORE (2 OR MORE FOR g2A) of listed indicators at least 'present' on the DAFOR scale
Leucanthemum vulgare, Lotus corniculatus, Lathyrus pratensis, Centaurea nigra (**FAIL)**
OR THREE OR MORE (1 OR MORE FOR g1A) of these indicators at least 'occasional' on the DAFOR scale (but not limited to field corners or edges). *, Lotus corniculatus, Lathyrus pratensis, Centaurea nigra* **(FAIL**)

The habitat does not meet the criteria for a high distinctiveness grassland due to the lack of indicator species present within the sward.

Each parcel is assessed for fit and the results are summarized below. The full analysis can be requested in a separate document.

Parcel	Grassland	Lowland Meadow	NVC	UKHabs Classification	s.41 Habitat
1	**Northern grassland**	N	MG10	g3c8 Holcus-Juncus neutral grassland	N

Classification Summary	Based on generally low species richness, most of this site is likely to qualify as **Good Quality Semi-Improved Neutral Grassland** rather than **Unimproved Neutral Grassland.**
Condition Assessment	**Medium Distinctiveness Grasslands Condition Assessment Sheet** A. "The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description). Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only." **FAIL** – The habitat parcel was assessed to be in a degraded condition due to a lack of management. B. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed. **FAIL –** Approximately 90% of the sward was >7cm. C. Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens2. **PASS** – Areas of localised bare ground were observed within the sward. D. Cover of bracken Pteridium aquilinum is less than 20% and cover of scrub (including bramble Rubus fruticosus agg.) is less than 5%. **PASS** – No bracken or scrub observed within the habitat parcel. E. "Combined cover of species indicative of suboptimal condition3 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species4 (as listed on Schedule 9 of WCA5) are present, this criterion is automatically failed." **FAIL –** The grassland comprised of 5% suboptimal species. Additional Criterion - must be assessed for all non-acid grassland types F. "There are 10 or more vascular plant species per m2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only." **FAIL** **For non acid grassland types** Passes 5 or 6 criteria, including essential criterion A and additional criterion F. Good (3) Passes 3 - 5 criteria, including essential criterion A. Moderate (2) "Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F." Poor (1) The site passes 2 criteria excluding essential criterion A and additional criterion F and is therefore assessed as being in **POOR** condition.

Photographs		
		

Figure 1 – the grassland dominated by marsh thistle

6.0 Assessment of Conservation Importance & Impact Assessment

Conservation Importance	
Assessment Methodology	Following the identification of stand types to community and, where possible, sub-community level, habitats, assemblages and species on site were assigned their conservation value and geographic importance. A broad range of core best-practice guidance and legislation was used to support characterisation and assessment of importance, which includes the following: • Biodiversity Gain Requirements (Irreplaceable Habitats) Regulations 2024[9] • Joint Nature Conservation Committee (JNCC) UK BAP Priority Habitat descriptions[10] • Guidelines for the Selection of Biological Sites of Special Scientific Interest (SSSIs)[11] • JNCC supplementary advice on UK Annex I habitats[12] • The Interpretation Manual of European Union Habitats[13] Following the identification of sward/stand types and important taxa, the relative importance of these along a geographic frame of reference was characterised. This was achieved with use of the below framework (Table 3.3), adapted from existing guidance including EcIA guidelines[14] and the Design Manual for Roads and Bridges, LA 108: Sustainability & Environment Appraisal LA 108 Biodiversity[15] The conservation value of individual species was gleaned from the BSBI Plant Atlas 2020[16], any available BRD, the county Rare Plant List and the British Lichen and Bryophyte Societies websites and online resources.

Geographic scale	Assessment criteria for habitats Standards for Highways (2020) the Design Manual for Roads and Bridges, LA 108: Sustainability & Environment Appraisal LA 108 Biodiversity
International	European designated sites where identified habitats are a listed feature, including SACs and Ramsar sites for example. All habitats listed within Annex I Habitats Directive (Interpretation manual of EU Habitats link: https://www.mase.gov.it/sites/default/files/archivio/allegati/rete_natura_2000/int_manual_eu28.pdf).

[9] Available at: https://www.legislation.gov.uk/uksi/2024/48/contents/made
[10] Available at: https://jncc.gov.uk/our-work/uk-bap-priority-habitats/#list-of-uk-bap-priority-habitats
[11] Available at: https://jncc.gov.uk/our-work/guidelines-for-selection-of-sssis/#part-2-habitat-chapters
[12] Available at: https://sac.jncc.gov.uk/habitat/
[13] European Commission., 2013. Interpretation Manual of European Union Habitats. Available at: https://www.mase.gov.it/sites/default/files/archivio/allegati/rete_natura_2000/int_manual_eu28.pdf
[14] Available at: https://cieem.net/wp-content/uploads/2018/08/EcIA-Guidelines-v1.3-Sept-2024.pdf
[15] Standards for Highways., 2020. Available at: https://www.standardsforhighways.co.uk/search/af0517ba 14d2-4a52-aa6d-1b21ba05b465
[16] https://plantatlas2020.org/

National	• Nationally designated sites where identified habitats are a listed feature, including SSSIs and NNRs as examples. • All habitats which meet relevant criteria for a national designation but do not currently form part of such a designation (SSSI selection guidelines link: https://jncc.gov.uk/our-work/guidelines-for-selection-of sssis/#part-2-habitat-chapters). • All irreplaceable habitats which do not fall under Annex I habitat categories, including some examples of ancient woodland, saltmarsh and lowland fen for example
Regional	• All semi-natural national priority habitats which do not fulfil relevant criteria for a national designation and/or do not fall under defined irreplaceable habitat categories. • Habitats which lie within regionally designated sites where those habitats are a listed feature. • Habitats which meet published selection criteria for the designation of a regionally designated site.
County	• Habitats which lie within county designated sites (e.g. Local Wildlife Sites) where those habitats are a listed feature. • Habitats which meet published county designated site criteria
Local	• All habitats which do not meet the above criteria such, excluding habitats of negligible value to wildlife (e.g. hardstanding with no colonising vegetation). This may include widespread habitats such as g3c Other neutral grassland, g4 Modified grassland, etc.
Negligible	• Habitats which are unvegetated and associated with negligible wildlife interest (i.e. unvegetated hard standing)

Important Habitats

Habitats & Conservation Importance	
Potentially Important Habitats of High Conservation Value	
Habitats	**Conservation Designation/Importance**
1. g3c8 Holcus-Juncus transitional phase	Moderate distinctiveness community of **LOCAL** conservation value.

Impact Assessment

The development will lead to;

Total destruction of a;

- **Moderate distinctiveness community**

The impacts of the loss will be of **LOCAL** magnitude.

	The damage will amount to a **PERMANENT ADVERSE EFFECT** and the loss must be compensated.
Important Species	No important species were observed within the habitat parcel, however there is a chance important species could have been present at other times of the year.
Impact Assessment	No impacts foreseen.
Important Assemblages	No important assemblages noted.

7.0 Recommendations & Enhancements

Recommendations & Enhancements	
Recommendations	
Habitat and Species Retention	The site can be enhanced post-development by: • Encapsulate as much existing green infrastructure into the development as possible.
Further Survey	No further surveys are required.
BNG	**Biodiversity Net Gain** A Biodiversity Net Gain (BNG) Assessment has been carried out and should be read in conjunction with this report (Arbtech Consulting Ltd, 2025).
Management Plans	• A **Habitat Management and Monitoring Plan (HMMP)** will be required to fulful BNG obligations. This will detail how retained/enhanced and created habitats will be managed and monitored. • A **Landscape Ecological Management Plan (LEMP**) or **Ecological Management Plan (EMP)** is likely to be requested via condition and will include long term management strategies for retained and created habitats not addressed by the BNG HMMP. • **A Construction Ecological Management Plan (CEMP)** is likely to be requested via condition to address protection of retained habitats on site.
Enhancements	
Grassland	• Implementation of a management routine for the retained grassland.

8.0 Bibliography

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Appendix 1 – Habitat Classification Map

Appendix 2 - Proposed Development Maps

Appendix 3 - Landscape Map

Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
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- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate. This approach is enshrined in Government planning guidance, for example, paragraph 185 of the National Planning Policy Framework for England. The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)