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Contents

1. Introduction

1.1 Background

1.1.1 This report has been produced as an appendix to Chapter 8: Ecology and Biodiversity (document reference 6.8) of the Environment Statement (ES) (Volume 6 of the Development Consent Order (DCO) application) for Norwich to Tilbury (the 'Project').

1.1.2 The ecological background and the scope for this report is set out in the Environmental Impact Assessment (EIA) Scoping Report (document reference 6.19) and agreed within the EIA Scoping Opinion received from the Planning Inspectorate in December 2022 (document reference 6.20).

1.1.3 That report identified the need for further assessment of notable/protected plants, and habitat of principal importance (HPI) (as introduced in s41 of the NERC Act 2006) as it was anticipated that the Project would pass through or near HPI that may support notable vascular plants. The presence of these would require appropriate mitigation to avoid adverse effects.

1.1.4 The EIA Scoping Report anticipated potential habitat loss through construction, with no perceivable pathways to impact from operation (and maintenance). Permanent habitat loss would be limited to permanent infrastructure, with all other habitats being reinstated on completion of construction as far as practical. Additional areas of planting and habitat creation to deliver a net gain in biodiversity will be implemented in the Project Environmental Areas. The Project has sought to avoid HPI and habitats with the potential to support protect/notable plant species through sensitive routing and siting. Overall, the Project approach aims to provide habitats of equal or better quality than that affected by the Project.

1.1.5 This report presents the results of targeted botanical surveys of areas of land (referred to as 'sites') within the Order Limits, as shown on Figure A8.2.1: National Vegetation Classification Survey Map in Annex A. A combination of UK Habitat Classification Survey (hereafter referred to as UKHab survey) and surveys using the National Vegetation Classification (NVC) have been used to identify whether these sites support HPI to inform the impact assessment.

1.1.6 The site selection has been informed by the botanical survey work and desk studies that have been undertaken for the Project. Appendix 8.1: Habitat Report (document reference 6.8.A1) contains the results of the following baseline studies:

- A desk study to identify records for habitats, plants, bryophytes and fungi within the Order Limits and a wider 2 km search area
- A Phase 1 habitat survey from Project commissioned high-resolution imagery captured using fixed-wing aircraft, conducted by APEM in April and May 2022
- A walkover survey of land within the Order Limits to confirm the results of the high-resolution imagery and map the habitats and assess their condition in accordance with the UKHab survey based on the technical guidance that accompanies Statutory Biodiversity Metric (Defra, 2024).

1.1.7 Appendix 8.16: Designated Sites (document reference 6.8.A16), identifies the statutory and non-statutory designated sites of nature conservation importance within the Order Limits and the Zone of Influence (ZoI) for the Project. These sites are known to support habitats of nature conservation importance and so targeted botanical survey have not been undertaken on these sites to inform the impact assessment.

1.1.8 The results presented in this report and those presented in Appendix 8.1: Habitat Report (document reference 6.8.A1) and Appendix 8.16: Designated Sites (document reference 6.8.A16, collectively present the baseline for the assessment of effects on habitats, plants, bryophytes and fungi.

1.1.9 The Project has also been sub-divided into eight geographical sections for reader accessibility, based largely on Local Planning Authority boundaries. Figure A8.2.1: National Vegetation Classification Survey Map, in Annex A:

- Section A – South Norfolk Council
- Section B – Mid-Suffolk District Council
- Section C – Babergh District Council, Colchester City Council and Tendring District Council
- Section D – Colchester City Council
- Section E – Braintree District Council
- Section F – Chelmsford City Council and Brentwood District Council
- Section G – Basildon Borough Council and Brentwood Borough Council (and part of Chelmsford City Council)
- Section H – Thurrock Council.

1.1.10 Results reported in this document reference the Project Section that the site is located within.

1.2 Brief and Objectives

1.2.1 One of the functions of a UKHab survey is to identify HPI, but owing to programme and access constraints the 2024 UKHab survey for the Project took place in the same survey season as the NVC survey and so the results of the 2024 UKHab survey could not be used to inform the selection of sites requiring NVC survey.

1.2.2 This report presents the results of targeted surveys of sites within the Order Limits that appeared to have the potential to support HPI. Targeted surveys were not undertaken of land that was known to support HPI or habitats or sites of conservation interest where sufficient data had already been collected as part of the desk study or walkover surveys to inform the impact assessment for the Project.

- The aim of the survey work is to obtain baseline data for the Project. This is achieved by undertaking the following:
- Field surveys to establish the habitats present on each site and the botanical composition of HPI
- Characterise habitats within the Order Limits.

1.2.3 The objective of the study is to:

- To gather information regarding habitats, present within the Order Limits and their condition, specifically to assign, where practicable, appropriate NVC plant communities to HPIs affected by the Project
- To obtain detailed botanical information on the composition of the HPI, to inform the impact assessment within Chapter 8: Ecology and Biodiversity (document reference 6.8).

1.3 Study and Survey Area

1.3.1 The sites that were subject to survey were selected on the basis that they were within the Order Limits, known as the Study Area, where there is the potential for temporary or permanent habitat loss as a result of the Project.

1.3.2 The Survey Area comprised 42 separate sites. Site locations are shown on Figure A8.2.1: National Vegetation Classification Survey Map, in Annex A.

2. Relevant Legislation and Policy

2.1 Legal Compliance

2.1.1 Surveys and assessments have been undertaken in accordance with current legislation and planning policy in the context of the Project. A summary of the relevant legislation is provided in Table A8.2.1.

Table A8.2.1 Legal compliance

Legislation	Details
Conservation of Habitats and Species Regulations 2017, as amended in 2019 (Habitats Regulations)	The Regulations require authorities on behalf of the Secretary of State to maintain a list of sites which are important for either habitats or species (Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)) and to provide protection for these sites through designation, planning, and other controls. The Regulations make it an offence (subject to exceptions) to deliberately, kill, injure, disturb, capture, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licences by the appropriate authorities (Natural England in England). Licences may be granted for several purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on the favourable conservation status of the species concerned.
The Wildlife and Countryside Act (WCA) 1981, as amended	The Act is the main mechanism for legislative protection of wildlife in England. It gives protection to native species (particularly threatened species), their resting places and places of shelter by making it an offence to kill, injure, take, damage, destroy, sell, or possess them (with exceptions). The Act gives protection to certain species of wild plants and safeguards important habitats by making it an offence to damage or destroy certain types of designated habitats, such as Sites of Special Scientific Interest (SSSIs) and v (NNRs). This Act also prohibits the spread and release of certain non-native species into the wild.
The Natural Environment and Rural Communities (NERC) 2006	The NERC Act places a duty upon public bodies to maintain Section 41 (s41) lists of flora, fauna, and habitats and to consider these ecological features as a material consideration in planning. It also requires decision-makers to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Legislation	Details
Countryside and Rights of Way Act 2000	The Act places a duty on government departments to have regard to the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity (this duty was strengthened in the NERC Act). It also strengthens legal protection for species considered to be threatened under the Wildlife and Countryside Act and increases powers for the protection and management of SSSIs.
The Environment Act 2021	In line with the 25 Year Plan for the Environment (HM Government, 2018), new development should identify and pursue opportunities for securing measurable net gains for biodiversity and for the wider environment. The Environment Act 2021 introduces a requirement for biodiversity net gain which is expected to become mandatory for Nationally Significant Infrastructure Projects in May 2026.

2.2 Planning Policy

2.2.1 Chapter 8: Ecology and Biodiversity (document reference 6.8) provides further details of relevant planning policy.

3. Methodology

3.1 Nomenclature

3.1.1 Common and scientific names of species recorded follow The New Flora for the British Isles Stace, C.A. (2019). Capital letters have not been used for the common names in keeping with guidance used for the compilation for the Environmental Statement whereby capital letters are only to be used for proper nouns. Scientific names are provided at first occurrence within the main body of the text.

3.2 Desk Study

3.2.1 Desk studies were completed in September 2023, with details amended as necessary in November 2024 to reflect the Order Limits. The aim of these desk studies was to collect data regarding habitats, plant species and designated sites to inform the baseline for the impact assessment. The results of these studies have informed the selection of survey locations for the NVC survey as outlined below. The methodology and results for these desk studies are detailed in Appendix 8.1: Habitat Report (document reference 6.8.A1) and Appendix 8.16: Designated Sites (document reference 6.8.A16), they are not discussed further within this document.

3.3 Survey Methodology

Site Selection

3.3.1 During the desk study and habitat surveys undertaken throughout 2023 and 2024, habitats that may qualify as HPI were noted. The 2024 NVC survey locations were sites where HPI is likely to be affected by the Project, where the desk study data and the 2023 UKHab survey data were not sufficient to provide a baseline for the impact assessment.

3.3.2 As the NVC survey locations were selected and surveyed before the UKHab survey was completed in 2024, a precautionary approach was taken to the selection of survey locations. Areas of land that had the potential to qualify as HPI, based on a review of desk study data or aerial photographs, were selected for NVC survey visits.

3.3.3 NVC survey locations were selected on the basis that they would be affected by the following elements of the Project:

- The temporary haul roads
- Underground cabling
- Pylon locations
- Permanent infrastructure, such as substation works and Cable Sealing End (CSE) compounds
- Where overhead lines and their conductors pass through woodland or wetland habitats.

3.3.4 Sites were not selected for survey where overhead lines and their conductors would pass over dry grassland and heathland habitats, with no potential impact pathways identified.

3.3.5 The Survey Area comprised 42 separate sites. Site locations are shown on Figure A8.2.1: National Vegetation Classification Survey Map, in Annex A.

Field Survey

3.3.6 All data recorded for this Project has been captured digitally on geographic information systems (GIS) enabled tablets which allowed ecologists in the field to review data that had been captured by team members undertaking the UKHab survey so that it could be verified and amended as necessary.

3.3.7 Each site was walked to identify if it supported or had the potential to support HPI. The UKHab survey data including condition assessment was recorded where it was missing from the GIS data base or verified/amended as necessary where data had been collected previously. Appendix 8.1: Habitat Report (document reference 6.8.A1) provides more detail on survey methodology and the results of the UKHab survey.

3.3.8 If it was apparent from the walkover survey that the site or parts of the site did not support HPI then no NVC data was collected for these areas. NVC surveys were only undertaken when the surveyor assessed that the site supported HPI or there was the potential that the habitat may be HPI, and data was required to inform this assessment.

3.3.9 On each site, within each confirmed or potential HPI, the potential NVC plant community/sub-community boundaries were mapped digitally i.e., community boundaries were mapped around areas of vegetation with similar plant species composition and structure otherwise known as stands of homogenous vegetation. On some sites the HPI was part of a larger stand of homogenous vegetation that extended beyond the site boundary and/or Order Limits, in which case the community boundary was mapped to coincide with the Order Limits.

3.3.10 Where the size of the stand of homogenous vegetation allowed, at least five quadrats were sampled. All plants rooted in each quadrat were recorded and Domin value (scale of 1 to 10) for abundance assigned so that Frequency (I to V) and Domin range for abundance was recorded for each species.

3.3.11 On completion of the quadrats, the surveyors walked the stand of homogenous vegetation, noted the species that were present within each potential community/sub-community assigning DAFOR ratings to these species. The name DAFOR is an acronym for the five abundance levels recorded: Dominant, Abundant, Frequent, Occasional and Rare, the prefix ‘L’ is used before Abundant and Frequent to denote that the species is Locally Abundant or Frequent. In contrast to the Domin scale, which is a quantitative method, the DAFOR scale is an ordinal or semi-quantitative method. The DAFOR scale is not used in the NVC methodology as it is subjective, there are no clear definitions for the abundance levels and due to the lack of precision inherent in the five-point scale. As such, it was only used for larger areas to provide a quick estimate of the relative abundance of species at each site, to inform a qualitative assessment of each plant community/subcommunity.

3.3.12 A habitat description was noted. Additional data recorded electronically on a form included: sward/vegetation height, the management regime (cutting, grazing, no management), dominant /abundant species, variation within the community or across

the site, topographic features i.e. aspect, pools of water, ditches, ant hills, mole hills, whether the site is on made ground, scrub or bracken (*Pteridium aquilinum*) encroachment, presence of floodplain, waterbodies etc. and anything else that assists in the assessment of value or in the understanding of variation across the site. Locations of quadrats and notable species i.e. those that are of conservation concern were captured digitally in GIS.

3.3.13 If sites supported plant communities or features that were too small to sample with five quadrats, the location of the feature was to be mapped and note taken of what the plant community or feature was, and a description provided on why it is considered noteworthy. For example, a raised bank that supports a narrow belt of HPI habitat, or a flush or spring. No such features were recorded during the survey.

3.3.14 Photographs were taken of each plant community sampled and to illustrate any noteworthy features, located in Annex F: Photographs.

3.3.15 Throughout the NVC surveys, the size of the sampling quadrats was selected appropriately to match the scale of the vegetation being sampled, based on standard guidance . The following quadrat dimensions were employed:

- 2 m by 2 m for short, herbaceous vegetation/grassland communities
- 4 m by 4 m for heathland, tall herb/wetland vegetation and woodland ground flora
- 10 m by 10 m for woodland understorey/shrub layer
- 50 m by 50 m (where practicable) for woodland canopy and sub-canopy.

3.3.16 This survey methodology follows published good practice guidance in line with the NVC Users' Handbook Rodwell, J.S. (2006).

Data Analysis

3.3.17 The dichotomous keys within British Plant Communities volumes 1, 2, 3, 4 and 5 (Rodwell, J.S. ed. 1991a, Rodwell, J.S. ed. (1991b), Rodwell, J.S. ed. (1992), Rodwell, J.S. ed. (1995) and Rodwell, J.S. ed. (2000) were used to assign NVC plant communities to the data, utilising the frequency and abundance data whilst also drawing comparisons with the community descriptions and location information. Where the data was not a 'good' fit for a community, this is discussed in the results and in some cases where the habitat had been modified by past management it was not possible to assign a community type.

3.3.18 The guidance followed to determine whether or not a site supported a HPI is that provided by the Joint Nature Conservation Committee on their website that provides definitions for what they identify as 'priority habitats' which in most cases are HPI .

3.4 Dates of Survey and Personnel

3.4.1 All lead surveyors were members of the Chartered Institute of Ecology and Environmental Management (CIEEM). They were trained, experienced ecologists, competent in undertaking botanical surveys, with Field Identification Skills Certificate (FISC) Level 4 and 5. The surveys took place between April and August 2024. Survey dates are provided in Annex B: NVC Survey Metadata.

3.5 Notes and Limitations

3.5.1 Botanical surveys are limited by a variety of factors which affect the presence of flora (i.e., climatic variation and season). A lack of evidence of a species during a survey does not mean that the species is absent. The surveys were undertaken between April and August 2024, which is the optimal time for most botanical surveys. Within this optimal season, some flowering plants are more conspicuous at certain times than others. Ideally the woodland ground flora would have been surveyed in the spring when early flowering plants are more prominent, but land access constraints meant that some woodlands were surveyed in the summer months. However, the surveyors were sufficiently experienced and competent to identify plants during both their vegetative and reproductive stages and survey timings were therefore not considered a significant constraint as the purpose of the survey was to confirm the presence/absence of HPI and not any target plant species.

3.5.2 This data presented in this report is representative of information that was available up to and including the end of March 2025. Land access restrictions meant that some land parcels were surveyed at a distance. Every effort was made to obtain access, and it is considered that sufficient access was available to determine the nature of the plant communities on site. Please refer to Annex B: NVC Survey Metadata for constraints specific to each site.

3.5.3 Some parts of the following sites are not located within the Order Limits. The community descriptions are retained in this report if they are part of a larger area of habitat which does intersect the Order Limits, or there is connecting habitat which intersects the Order Limits. These communities are:

- Communities 12-02, 12-05, 12-06
- Communities 14-01, 14-02
- Community 29-02
- Community 32-01.

3.5.4 Site 25 and corresponding communities (25-01, 25-02, 25-03, 25-04) are located outside the Order Limits and have no connecting habitat, therefore results are not reported in this report.

4. Results

4.1 Overview

4.1.1 Figure A8.2.1: National Vegetation Classification Survey Map in Annex A shows the locations of all of the survey sites with the areas that were surveyed and quadrat locations also shown where applicable.

4.1.2 Visits were conducted on all sites where the desk study and/or UKHab surveys identified sites as having the potential to support HPI. A number of these were scoped out completely from NVC surveys following the visit as they were not considered to support HPI: 1, 2, 4, 5, 6, 8, 9, 10, 11, 15, 16, 20, 21, 30, 33, 34a, 34b, 35, 37 and 43. Habitat descriptions and justification for these decisions are provided in Annex B: NVC Survey Metadata. The locations of these sites are shown on Figure A8.2.1: National Vegetation Classification Survey Map in Annex A.

4.1.3 The survey results for the remaining sites where NVC surveys were conducted are outlined within the following sections.

4.1.4 Detailed survey data is provided in Annex B: NVC Survey Metadata, Annex C: NVC Communities – Habitat Description, Annex D: NVC Communities – Physical Properties, Annex E: NVC Communities – Floristic Tables (Table A8.2.4 to Table A8.2.50) Annex F: Photographs and Annex G: Protected / Notable Plant Species Recorded During Surveys.

4.2 Survey Results

Section A - South Norfolk Council

Site 03 - Community 03-01

4.2.1 Site 3 (see photograph A8.2.1 in Annex F) was a small patch of woodland (c. 0.5 ha) with a track (Hickling Lane). The woodland had a canopy of deciduous tree species, predominantly ash (*Fraxinus excelsior*) and field maple (*Acer campestre*). The understorey supported blackthorn (*Prunus spinosa*), hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*), field-rose (*Rosa arvensis*), elder (*Sambucus nigra*), goat willow (*Salix caprea*) and holly (*Ilex aquifolium*). The ground layer was dominated by a carpet of common ivy (*Hedera helix*). A detailed species composition is provided in Table A8.2.4, Table A8.2.5 and Table A8.2.6, Annex E.

4.2.2 Community 03-01 comprised W8d *Fraxinus excelsior – Acer campestre – Mercurialis perennis* woodland, *Hedera helix* subcommunity (although there was no dog's mercury (*Mercurialis perennis*) present within the ground layer). This community qualified as lowland mixed deciduous woodland HPI.

Site 07 - Community 07-01

4.2.3 Site 7 (see photograph A8.2.2 in Annex F) was a small area of woodland (c. 0.4 ha) situated on the slopes of a former railway cutting. Trees and shrubs were mostly located on steep, 12 m high banks. The canopy comprised predominantly early mature ash, pedunculate oak (*Quercus robur*) and field maple, with a hawthorn-dominated shrub layer (and smaller amounts of blackthorn). The ground on the slopes was mostly bare, whereas the flat ground within the central area of the cutting was mainly covered by common nettle (*Urtica dioica*), with some common ivy, false brome (*Brachypodium sylvaticum*) and germander speedwell (*Veronica chamaedrys*). A detailed species composition is provided in Table A8.2.7, Table A8.2.8 and Table A8.2.9, Annex E.

4.2.4 Community 07-01 comprised W8d *Fraxinus excelsior – Acer campestre – Mercurialis perennis* woodland, *Hedera helix* subcommunity (although there was no dog's mercury present within the ground layer). This community qualified as lowland mixed deciduous woodland HPI.

Section A - South Norfolk Council and Section B - Mid-Suffolk District Council

Site 12

4.2.5 Site 12 comprised areas of woodland, a ditch and several areas of swamp and grassland. NVC survey was undertaken on three areas of grassland, two areas of swamp and one woodland. Other areas of grassland were species-poor and not considered HPI and so detailed NVC survey was not undertaken in those areas.

4.2.6 As outlined below the grassland and swamp plant communities that were sampled in this site do not qualify individually as HPI. They are located within an area that appears to receive regular flood water, it contains ditches and hollows. Consequently, communities 12-01, 12-02, 12-03 and 12-04 form a habitat that would be classified as the HPI coastal and floodplain grazing marsh based on JNCC guidelines (JNCC, 1995 - 2019). Whilst community 12-06 is not located adjacent to these plant communities it is in the same floodplain as these communities and appears to be regularly inundated and would also be classified as the HPI coastal and floodplain grazing marsh based on JNCC guidelines (JNCC, 1995 - 2019).

4.2.7 Communities 12-02 and 12-06 are located outside the Order Limits however their descriptions are retained in this report to provide contextual information to the coastal and floodplain grazing marsh HPI which does intersect the Order Limits. Community 12-05 is also located outside the Order Limits, community details are retained in this report to offer contextual information on the connecting woodland which does intersect the Order Limits (plantation woodland, not HPI).

Site 12 - Community 12-01

4.2.8 The grassland (see photograph A8.2.3 in Annex F) was dominated by creeping bent (*Agrostis stolonifera*), with scattered tussocks of tufted hair-grass (*Deschampsia cespitosa*) and soft-rush (*Juncus effusus*). Forbs (herbaceous non-grass species) included creeping buttercup (*Ranunculus repens*) and creeping thistle (*Cirsium arvense*). A ditch was in the central area, it contained floating sweet-grass (*Glyceria fluitans*) bordered by soft-rush and reed canary-grass (*Phalaris arundinacea*), with tall herbs encroaching on the northern side. The River Waveney was on the southern

edge of the field, where ruderals such as common nettle and curled dock (*Rumex crispus*), and plants associated with damp conditions such as common meadow-rue (*Thalictrum flavum*) and marsh-bedstraw (*Galium palustre*) were abundant. A detailed species composition is provided in Table A8.2.10, Annex E.

4.2.9 Community 12-01 comprised MG13 *Agrostis stolonifera – Alopecurus geniculatus* grassland (although marsh foxtail *Alopecurus geniculatus* was absent). This community did not qualify on its own as HPI but see note regarding Site 12 above.

Site 12 - Community 12-02

4.2.10 This community (see photograph A8.2.4 in Annex F) comprised a stand of greater pond-sedge (*Carex riparia*) extending from the ditch into the grassland. Common reed (*Phragmites australis*) was present at the western end, becoming more species diverse at its transition with the grassland, where it contained a similar species composition as described in 12-01 above, with the addition of cuckooflower (*Cardamine pratensis*). A detailed species composition is provided in Table A8.2.11, Annex E.

4.2.11 Community 12-02 comprised S6 *Carex riparia* swamp. This community did not qualify on its own as HPI and is outside the Order Limits. However, it is reported in this document because it is part of a larger area of coastal and floodplain grazing marsh HPI see note regarding Site 12 above.

Site 12 - Community 12-03

4.2.12 This grassland (see photograph A8.2.5 in Annex F) was a low-lying area of grazed field which featured a high incidence of creeping bent, resembling community 12-01, but with a higher incidence of dominant grasses.

4.2.13 Community 12-03 comprised MG13 *Agrostis stolonifera – Alopecurus geniculatus* grassland. This community did not qualify on its own as HPI but see note regarding Site 12 above.

Site 12 - Community 12-04

4.2.14 This community (see photograph A8.2.6 in Annex F) comprised a heavily vegetated ditch dominated by greater pond-sedge, with irregular mature goat willow. The species composition was similar as in community 12-02.

4.2.15 Community 12-04 comprised S6 *Carex riparia* swamp. This community did not qualify as HPI on its own but see note regarding Site 12 above.

Site 12 - Community 12-05

4.2.16 The woodland (see photograph A8.2.7 in Annex F) was approximately 0.3 ha, with a canopy dominated by pedunculate oak, with additional sycamore (*Acer pseudoplatanus*), crack-willow (*Salix fragilis*) and silver birch (*Betula pendula*). The understorey was sparse and comprised generally guelder-rose (*Viburnum opulus*), elder, hawthorn and gorse (*Ulex europaeus*). The most common species within the ground layer were honeysuckle (*Lonicera periclymenum*), Yorkshire-fog (*Holcus lanatus*) and three-nerved sandwort (*Moehringia trinervia*). Other ground flora included wood-sedge (*Carex sylvatica*), sheep's sorrel (*Rumex acetosella*) and greater pond-sedge. A detailed species composition is provided in Table A8.2.14, Table A8.2.16 and Table A8.2.17 in Annex E.

4.2.17 Community 12-05 comprised W10d *Quercus robur – Pteridium aquilinum – Rubus fruticosus* woodland, *Holcus lanatus* subcommunity (although bracken (*Pteridium aquilinum*) was absent, and bramble (*Rubus fruticosus* agg.) was only occasional). This community qualified as lowland mixed deciduous woodland HPI, and is outside the Order Limits. The woodland transitions to a broadleaved plantation which intersects the Order Limits.

4.2.18 This woodland is within Wortham Ling SSSI which is designated as a site of National importance for nature conservation for the lowland heath and acid grassland that it supports. The lowland heath and acid grassland are outside the Order Limits.

Site 12 - Community 12-06

4.2.19 This grassland (see photograph A8.2.8 in Annex F) was located within a low-lying area of a field and had a high incidence of bare ground apparently due to winter flooding. The sward was dominated by creeping bent, with common reed encroaching from a boundary ditch.

4.2.20 Community 12-06 comprised MG13 *Agrostis stolonifera – Alopecurus geniculatus* grassland. This community did not qualify as HPI on its own, it is outside the Order Limits and is part of an area of the HPI coastal and floodplain grazing marsh, see note regarding Site 12 above.

Section B - Mid-Suffolk District Council

Site 13 - Community 13-01

4.2.21 This field (see photograph A8.2.9 in Annex F) was a rush pasture with a high water table and approximately 10% scrub encroachment on the boundaries (bramble and willow). It was considered possible that the field was grazed and/or mowed. The edge of the field was shaded by trees. Meadow foxtail (*Alopecurus pratensis*), Yorkshire-fog, jointed rush (*Juncus articulatus*) and common sorrel (*Rumex acetosa*) were abundant through the sward. Ruderal herbs (such as common nettle) were also dominant along the field margin. Acidic influence was evident in some areas due to the presence of tormentil (*Potentilla erecta*). A detailed species composition is provided in Table A8.2.15 in Annex E.

4.2.22 Community 13-01 was a damp neutral grassland that was not a good fit with any NVC community lacking any indicator species associated with a particular grassland type. This community did not qualify as HPI.

Site 14

4.2.23 Site 14 comprised woodland and grassland. The part of the site that supports community 14-02 is located outside the Order Limits, however the community description is retained in this report to offer contextual information to community 14-01. The NVC quadrats sampled for community 14-01 are also outside the Order Limits, but the eastern and south eastern edge of the woodland described as community 14-01 is within the Order Limits.

Site 14 - Community 14-01

4.2.24 The woodland (see photograph A8.2.10 in Annex F) was approximately 0.3 ha. The canopy comprised predominantly mature pedunculate oak and ash trees, with

smaller amounts of sycamore and field maple. Hawthorn and bramble were the most frequent species in the understorey. The ground layer featured false brome, garlic mustard (*Alliaria petiolata*) and cleavers (*Galium aparine*). Deer browsing was evident. A detailed species composition is provided in Table A8.2.16, Table A8.2.17 and Table A8.2.18, Annex E.

4.2.25 Community 14-01 comprised W8a *Fraxinus excelsior – Acer campestre – Mercurialis perennis* woodland – *Primula vulgaris, Glechoma hederacea* subcommunity (although pedunculate oak was more prevalent within the canopy than field maple). This community qualified as lowland mixed deciduous woodland HPI.

Site 14 - Community 14-02

4.2.26 This grassland (see photograph A8.2.11 in Annex F) appeared to be subject to annual mowing. It had a varied sward height, dominated by grasses, and featured a diverse range of forb species. Common grasses included meadow foxtail, sweet vernal-grass (*Anthoxanthum odoratum*), Yorkshire-fog and creeping bent. Forb species included lesser celandine (*Ficaria verna*), meadow vetchling (*Lathyrus pratensis*) and creeping buttercup, with others such as creeping cinquefoil (*Potentilla reptans*), germander speedwell, cowslip (*Primula veris*), marsh thistle (*Cirsium palustre*) and wild carrot (*Daucus carota* subsp. *carota*). There was a small patch of hard rush (*Juncus inflexus*) and minor bramble encroachment. A detailed species composition is provided in Table A8.2.19 in Annex E.

4.2.27 Community 14-02 had affinities to MG4 *Alopecurus pratensis – Sanguisorba officinalis* grassland, although it was not classic MG4 (due to the absence of great burnet (*Sanguisorba officinalis*) and other indicator species throughout the sward) and was not a good fit with any other NVC community. This community did not qualify as HPI, and is located outside the Order Limits (see note regarding community 14-02 above).

Site 17 - Community 17-01

4.2.28 This woodland (see photograph A8.2.12 and photograph A8.2.13 in Annex F) was located on two slopes of a small valley with a dry ditch channel in the centre, which appeared to flood during periods of high rainfall. There was evidence of nutrient enrichment caused by runoff from adjacent farmland on both sides of the valley. Field maple was the most abundant canopy tree, followed by ash, pedunculate oak and English elm (*Ulmus procera*). There were mature specimens but no veteran trees. Elder was the most common shrub species, with hazel, spindle (*Euonymus europaeus*), blackthorn, dog-rose (*Rosa canina* agg.) and hawthorn also present but more infrequently. The ground layer flora was diverse. The most frequently encountered species in this woodland layer were dog's mercury, false brome and garlic mustard. Common nettle and garlic mustard were abundant in the low-lying area. A detailed species composition is provided in Table A8.2.20, Table A8.2.21 and Table A8.2.22 in Annex E.

4.2.29 Community 17-01 comprised W8f *Fraxinus excelsior – Acer campestre – Mercurialis perennis* woodland, *Allium ursinum* subcommunity (although ash did not dominate the canopy and ramsons (*Allium ursinum*) was not very prominent, being only found in small pockets). This community qualified as lowland mixed deciduous woodland HPI.

Site 18 - Community 18-01

4.2.30 The grassland in Site 18 (see photograph A8.2.14 in Annex F) was generally species-poor and contained some recently-disturbed areas which were more species-rich and supported some lowland meadow indicator species such as ox-eye daisy (*Leucanthemum vulgare*), salad burnet (*Sanguisorba minor*) and yellow-rattle (*Rhinanthus minor*). Tall fescue (*Schedonorus arundinaceus*) was the most common grass species, followed by red fescue (*Festuca rubra*). Other grasses included false oat-grass (*Arrhenatherum elatius*), common couch (*Elymus repens*), crested dog's-tail (*Cynosurus cristatus*), Yorkshire-fog, sweet vernal-grass, timothy (*Phleum pratense*), meadow foxtail, creeping bent, cock's-foot (*Dactylis glomerata*) and common bent (*Agrostis capillaris*). Ribwort plantain (*Plantago lanceolata*) was the most common form. A detailed species composition is provided in Table A8.2.23 in Annex E.

4.2.31 Community 18-01 was determined to comprise MG1a *Arrhenatherum elatius* grassland, *Festuca rubra* subcommunity. Tall fescue was abundant throughout the grassland, which is not typical for this grassland NVC community and it would appear likely that this area has been sown with grass seed in the past. This community did not qualify as HPI.

Section C - Babergh District Council, Colchester City Council and Tendring District Council

Site 19

4.2.32 Site 19 comprised areas of neutral grassland, tall herb/swamp vegetation and wet woodland. NVC survey was undertaken on two areas of swamp and one woodland. Other areas of species-poor grassland were not considered HPI and detailed NVC survey was not undertaken in those areas.

Site 19 - Community 19-01

4.2.33 This was an area of land inundated by the nearby Belstead Brook (see photograph A8.2.15 in Annex F). It was located at the bottom of grassland hill grazed by cattle. The wetland featured abundant oval sedge (*Carex leporina*) and hard rush (*Juncus inflexus*). Other species associated with damp ground included, water mint (*Mentha aquatica*), wild angelica (*Angelica sylvestris*), common fleabane (*Pulicaria dysenterica*) and skullcap (*Scutellaria galericulata*). It is not known if this area is grazed but considered possible given the presence of cattle in the adjacent field. A detailed species composition is provided in Table A8.2.24 in Annex E.

4.2.34 Community 19-01 comprised a transition between a damp grassland community and a swamp community. It does not have sufficient abundance of grasses to fit into a grassland community. It has affinities to M27 *Filipendula ulmaria – Angelica sylvestris* mire but does not have the abundance of meadowsweet (*Filipendula ulmaria*) associated with that community. This community would not qualify as HPI.

Site 19 - Community 19-02

4.2.35 Community 19-02 (see photograph A8.2.16 in Annex F) was a small area of wetland dominated by greater and lesser pond-sedge (*Carex riparia* and *Carex acutiformis*). This area lacked diversity, with other species including rough meadow-grass (*Poa*

trivialis), meadow foxtail, oval sedge, water mint and common nettle. Sheep grazing was evident. A detailed species composition is provided in Table A8.2.25 in Annex E.

4.2.36 Community 19-02 was determined to comprise a transition between S6 *Carex riparia* swamp and S7 *Carex acutiformis* swamp. This community would not qualify as HPI.

4.2.37 This area of swamp is located within Sproughton Park County Wildlife Site (CWS). The CWS has been designated as a site of County importance because it comprises an extensive area of non-intensively managed farmland and associated woodland, scrub, and rough grassland.

Site 19 - Community 19-03

4.2.38 This was a narrow strip of woodland/ line of trees and shrubs along Belstead Brook corridor (see photograph A8.2.17 in Annex F). The trees comprised predominantly alder (*Alnus glutinosa*) with frequent crack-willow (*Salix fragilis*) and few ash trees. The shrubs were sparsely distributed along the brook bank and included hawthorn, blackthorn and hazel, with the ground flora dominated by common nettle. The ground flora was more diverse along the edge of the brook, with ramsons and moschatel (*Adoxa moschatellina*) recorded. Cattle and sheep grazed on either side of the brook. Very large former coppiced alder trees were noted along the brook bank. A detailed species composition is provided in Table A8.2.26 and Table A8.2.27 in Annex E.

4.2.39 Community 19-03 was classified as W6a *Alnus glutinosa – Urtica dioica* woodland, typical subcommunity. It lacked many of the ground flora species associated with this wet woodland type and has been classified as lowland mixed deciduous woodland HPI.

Site 22 - Community 22-01

4.2.40 Site 22 (see photograph A8.2.18 and photograph A8.2.19 in Annex F) was a linear woodland located along a former railway line, with a mown track though part of it. There was a raised bank in the western half and a sunken bank in the eastern half, both with 45-degree slopes. Pedunculate oak was the dominant species within the canopy, particularly within the central and east areas of the woodland. The canopy was more diverse towards the west, with additional species recorded including English elm, wild cherry (*Prunus avium*), ash and field maple. Hawthorn and blackthorn were the most common species in the understorey. There was a diverse ground flora including abundant false brome and frequent dog's mercury, ground-ivy (*Glechoma hederacea*), garlic mustard, Yorkshire-fog and cow parsley. A detailed species composition is provided in Table A8.2.28, Table A8.2.29 and Table A8.2.30 in Annex E.

4.2.41 Community 22-01 comprised W10d *Quercus robur – Pteridium aquilinum – Rubus fruticosus* woodland, *Holcus lanatus* subcommunity. *Holcus lanatus* subcommunity was considered to be the best fit, but possibly also *Hedera helix* due to the high incidence of false brome and garlic mustard). This community qualified as lowland mixed deciduous woodland HPI.

Site 23 - Community 23-01

4.2.42 This community (see photograph A8.2.20 in Annex F) was located in damp soil on the edge of a grazed field alongside a ditch with abundant greater pond-sedge and creeping bent and frequent curled dock and redshank (*Persicaria maculosa*). A detailed species composition is provided in Table A8.2.31 in Annex E.

4.2.43 Community 23-01 comprised S6 *Carex riparia* swamp. This community would not qualify as HPI in isolation.

4.2.44 The rest of the site had the potential to qualify as coastal and floodplain grazing marsh HPI due to presence of grazed grassland, pools and ditches. The grassland was modified and not considered to be sufficiently diverse to be a valuable grassland NVC community most closely resembling MG7 *Lolium perenne* leys and related grasslands.

4.2.45 On balance it was determined that most of Site 23 would not conform to the definition of coastal and floodplain grazing marsh as it was too heavily modified, but that the area of swamp habitat was in an area with pools, ditches and grassland that may receive flood water could be classified as coastal and floodplain grazing marsh HPI, it has therefore been classified as such on a precautionary basis.

Site 24 - Community 24-01

4.2.46 A detailed NVC survey could not be undertaken at this site on health and safety grounds. It comprised a large area of swamp around a drying lagoon (see photograph A8.2.21 in Annex F) with large areas of greater pond-sedge, some reed bed, stands of yellow iris (*Iris pseudacorus*), extensive water mint, gypsywort (*Lycopus europaeus*) and purple-loosestrife (*Lythrum salicaria*). Drying areas (Photograph A8.2.22, Annex F) were covered by dead vegetation, leaf litter and patches of hawthorn, blackthorn and bramble scrub, creating a mosaic habitat.

4.2.47 Community 24-01 comprised S6 *Carex riparia* swamp. This community would not qualify as HPI in isolation. The area supporting community 24-01 and the lagoon has been classified as coast floodplain grazing marsh HPI as it receives flood water and contains pools and ditches, it is not certain that this area is ever grazed.

Site 25

4.2.48 Site 25 is located outside the Order Limits. The site is approximately 1 km east and 0.4 km north of the Order Limits and there is no connecting habitat.

Site 26

4.2.49 Site 26 comprised four distinct sections with swamp, acid grassland, woodland and neutral grassland. Communities 26-01 (see photograph A8.2.27 in Annex F), 26-02 (see photograph A8.2.28 in Annex F), 26-03 (see photograph A8.2.29 in Annex F) and 26-05 (see photograph A8.2.31 in Annex F) are described below. Community 26-04 (see photograph A8.2.30 in Annex F) was not surveyed in detail as it comprised other neutral grassland / species-poor semi-improved neutral grassland and not HPI. Details are provided in Annex C.

Site 26 - Community 26-01

4.2.50 Community 26-01 (see photograph A8.2.27 in Annex F) was an area of swamp with fluctuating water levels from the adjacent lake. It was dominated by bulrush (*Typha latifolia*) and branched bur-reed (*Sparganium erectum*), with transition to rushes (*Juncus* sp.). A greater species richness was recorded at this transition. A detailed species composition is shown in Table A8.2.32 in Annex E.

4.2.51 Community 26-01 was assessed to most closely resemble S14c *Sparganium erectum* swamp (*Sparganietum erecti*), *Mentha aquatica* subcommunity, although bulrush was abundant, which is not typical for S14c. This community did not qualify as HPI.

4.2.52 This part of the site is within Black Brook Local Wildlife Site (LWS) a site of County importance to nature conservation.

Site 26 - Community 26-02

4.2.53 This was an area of short, grazed grassland (see photograph A8.2.28 in Annex F) located on either side of a track with abundant acid grassland indicator species and minor bramble encroachment. There was abundant common bent, sheep's-fescue (*Festuca ovina*), sheep's sorrel, Polytrichum sp. moss, early forget-me-not (*Myosotis ramosissima*) and common stork's-bill (*Erodium cicutarium*). The grassland gradually decreased in quality towards the west, with grasses, bramble and ruderal species (i.e., common nettle and thistles *Cirsium* spp.) dominant to the west of the track. Within this section located to the west of the track, there were still limited patches where acid character was retained. A detailed species composition is provided in Table A8.2.33 in Annex E.

4.2.54 Community 26-02 most closely resembled U1c *Festuca ovina – Agrostis capillaris – Rumex acetosella* grassland, *Erodium cicutarium – Teesdalia nudicaulis* sub-community, with affinities to U1b (typical subcommunity). This community qualified as lowland dry acid grassland HPI.

Site 26 - Community 26-03

4.2.55 Community 26-03 (see photograph A8.2.29 in Annex F) was a woodland which was not sampled with quadrats as classification as alder woodland was straight forward. The canopy was comprised of mainly mature alder, with frequent hybrid crack-willow (*Salix x fragilis*). A narrow stream flowed west to east through the centre. The western end featured planted willow (*Salix* spp.) and poplar (*Populus* sp.), whereas the southern end comprised planted sycamore, pedunculate oak, silver birch and hazel alongside a track. A small mostly dry pond was present in this section too. The understorey featured elder and willow but was relatively sparse. The ground flora included abundant common nettle and cleavers. Yorkshire-fog and rough meadow-grass was present, as well as garlic mustard, wavy bitter-cress (*Cardamine flexuosa*), ground-ivy, three-nerved sandwort, foxglove, green alkanet (*Pentaglottis sempervirens*) and opposite-leaved golden-saxifrage. Bracken was present in low incidence at the eastern end. The non-native invasive plant species Himalayan balsam (*Impatiens glandulifera*) was also present.

4.2.56 Community 26-03 was determined to comprise W6a *Alnus glutinosa – Urtica dioica* woodland, typical subcommunity, with a high incidence of willow within the canopy due to planting. This community qualified as lowland mixed deciduous woodland HPI as it did not support a sufficient diversity of wetland ground flora species to be classified as wet woodland.

Site 26 - Community 26-05

4.2.57 There was a small section (20 m x 5 m) at the south-eastern section of community 26-04, at the top of a slope, which supported acid grassland (see photograph A8.2.31 in Annex F). The species composition was similar as in community 26-02.

4.2.58 Community 26-05 most closely resembled U1c *Festuca ovina – Agrostis capillaris – Rumex acetosella* grassland, *Erodium cicutarium – Teesdalia nudicaulis* sub-community, with affinities to U1b (typical subcommunity). This community qualified as lowland dry acid grassland HPI.

Site 27 - Community 27-01

4.2.59 Site 27 featured a grassland located on a slope (see photograph A8.2.32 in Annex F) with minor impact from rabbit burrowing. The lower part of the slope at the southern end was dominated by grasses with a patch of rush. To the north there was a flat top which supported acid grassland indicator species but also a high incidence of thistle, musk thistle (*Carduus nutans*) and common nettle. Typical species were rat's-tail fescue (*Vulpia myuros*), sheep's-fescue, creeping bent, soft-brome and meadow fescue (*Schedonorus pratensis*). There were also patches of perennial rye-grass (*Lolium perenne*) and rough meadow-grass at the northern boundary of the field. A detailed species composition is shown in Table A8.2.34 in Annex E.

4.2.60 Community 27-01 most closely resembled U1b *Festuca ovina – Agrostis capillaris – Rumex acetosella* grassland, typical sub-community. The high incidence of musk thistle a plant more commonly associated with calcareous sites is an interesting anomaly in this habitat. This community qualified as lowland dry acid grassland HPI.

4.2.61 The southern part of this site is located within Black Brook LWS a site of County importance to nature conservation.

Site 28 - Community 28-01

4.2.62 Site 28 comprised an unmanaged tall rank grassland field with the appearance of a fallow former arable field (see photograph A8.2.33 in Annex F). Common grass species in the sward included rat's-tail fescue, rough meadow-grass, Yorkshire-fog, soft-brome, false oat-grass and common bent. There was a high incidence of ruderal species such as broad-leaved dock (*Rumex obtusifolius*). There were also limited areas with shorter sward due to ground disturbance with a higher occurrence of ephemerals such as bristly oxtongue (*Helminthotheca echioides*), common cudweed (*Filago germanica*), smooth hawk's-beard (*Crepis capillaris*) and scented mayweed (*Matricaria chamomilla*). Several patches of scattered scrub were present within the field. A detailed species composition is provided in Table A8.2.35 in Annex E.

4.2.63 Community 28-01 was not a good fit with any NVC community it most closely resembled MG1c *Arrhenatherum elatius* grassland (*Arrhenatheretum elatioris*), *Filipendula ulmaria* sub-community with affinities to the open vegetation community OV23c *Lolium perenne – Dactylis glomerata* community, *Plantago major – Trifolium repens* sub-community. This community did not qualify as HPI.

Site 29

4.2.64 Site 29 comprised two distinct areas of woodland. Community 29-02 (see photograph A8.2.35in Annex F) is described below. Community 29-01 (see photograph A8.2.34 in Annex F) was not surveyed in detail as it was a plantation woodland and not HPI. Details are provided in in Annex C: NVC Communities – Habitat Description.

4.2.65 Community 29-02 is located outside the Order Limits, however community details are retained in this report to provide contextual information on the connecting woodland (community 29-01) which does intersect the Order Limits (plantation woodland, not HPI).

Site 29 - Community 29-02

4.2.66 The woodland to the west of Site 29 is an unmanaged woodland located at the edge of fishing lakes (see photograph A8.2.35 in Annex F). Survey within this area was constrained due to dense nettle and bramble cover and no landowner permission to access the adjacent land parcel owned by Anglian water (fishery), so a full quadrat-based survey could not be undertaken. Alder was the dominant canopy tree, with low incidence of willow, silver birch (*Betula pendula*) and oak. Willow and elder were recorded within the sparse understorey. The ground/herb layer featured abundant common nettle with patches of remote sedge (*Carex remota*) and rough meadow-grass, and bramble. In areas the ground was bare most likely because of flood in the winter.

4.2.67 Community 29-02 comprised W6a *Alnus glutinosa – Urtica dioica* woodland, typical subcommunity. The habitats on this site appeared to have originated from planting and would not qualify as HPI.

Section D - Colchester City Council

Site 31 - Community 31-01

4.2.68 This was a mature semi-natural woodland dominated at canopy level by alder, with some ash and willow on the eastern side (see photograph A8.2.36 in Annex F). At the southern end, there was a strip of planted trees of various species. The understorey was dominated by elder, but some open areas supported dense bramble. The ground layer included abundant common nettle, with locally abundant bracken. Exposed soil was abundant. Bluebell, a ground flora species associated with ancient woodland, was abundant. There was evidence of browsing pressure from deer. A detailed species composition is provided in Table A8.2.36,Table A8.2.37 and Table A8.2.38 in Annex E.

4.2.69 Community 31-01 was determined to comprise W6d *Alnus glutinosa – Urtica dioica* woodland, *Sambucus nigra* subcommunity. This community qualified as lowland mixed deciduous woodland HPI as it was not sufficiently damp to qualify as wet woodland.

Site 32 - Community 32-01

4.2.70 Community 32-01 was a grassland field likely cut for hay (see photograph A8.2.37 in Annex F). Abundant / frequent grasses included crested dog's-tail, red fescue, creeping bent and common bent. There was a diverse sward (over 15 species/m^2) and abundant forb presence (30% cover), with most-frequently recorded forbs including oxeye daisy (*Leucanthemum vulgare*), wild carrot, common knapweed (*Centaurea nigra*), lady's bedstraw (*Galium verum*), lesser trefoil (*Trifolium dubium*), ribwort plantain (*Plantago lanceolata*) and grass vetchling (*Lathyrus nissolia*). A detailed species composition is provided in Table A8.2.39 in Annex E.

4.2.71 Community 32-01 comprised MG5 *Cynosurus cristatus – Centaurea nigra* grassland (*Centaureo-Cynosuretum cristati*). There was not a close fit with any sub-community but it resembled most closely the MG5b *Galium verum* subcommunity. This community qualified as lowland meadows HPI, although it was a poor example with only five indicators (i.e. oxeye daisy, common knapweed, lady's bedstraw, rough hawkbit (*Leontodon hispidus*) and salad burnet). This habitat covers a small part of Site 32. Community 32-01 is located outside the Order Limits, however its description

is retained in this report to provide further context to Site 32 for reference purposes only.

4.2.72 Most of the grassland within the site is other neutral grassland and sparsely vegetated land.

4.2.73 Bee orchid (*Ophris apifera*), pyramidal orchid (*Anacamptis pyramidalis*) and dragon's-teeth (*Lotus maritimus*) were recorded within Site 32, the latter is a non-native species which could indicate that the grassland community originates from seeding. Pyramidal orchid was recorded within the Order Limits.

Section F - Chelmsford City Council and Brentwood District Council

Site 36 - Community 36-01

4.2.74 Site 36 was a narrow strip of mature woodland between arable fields (see photograph A8.2.38 in Annex F). Pedunculate oak and ash dominated at the western end, with hornbeam (*Carpinus betulus*) and silver birch also present to the east. The understorey comprised hazel and young hornbeam, with a bramble-dominated field layer. The ground flora was relatively sparse and was dominated by false brome. There was evidence of deer browsing. A detailed species composition is provided in Table A8.2.40, Table A8.2.41 and Table A8.2.42 in Annex E.

4.2.75 Community 36-01 comprised W10a *Quercus robur – Pteridium aquilinum – Rubus fruticosus* woodland, typical subcommunity, although bracken was only present in the eastern section. Hornbeam was more abundant than a classic example of a W10 community. This community qualified as lowland mixed deciduous woodland HPI.

4.2.76 This woodland is part of Great/Little Edney LWS a site of County importance to nature conservation.

Section G - Basildon Borough Council and Brentwood Borough Council (and part of Chelmsford City Council)

Site 39 - Community 39-01

4.2.77 Site 39 (see photograph A8.2.39 in Annex F) was an unmanaged woodland with a canopy dominated by pedunculate oak with occasional ash and rare wild service-tree (*Sorbus torminalis*). Most trees were semi-mature, with larger trees noted along the boundary. The understorey comprised mainly hawthorn, blackthorn, field maple and rarely spindle. The ground flora was not diverse, with frequent rough meadow-grass and occasional greater stitchwort (*Stellaria holostea*). Bramble and honeysuckle were also noted along with adder's-tongue (*Ophioglossum vulgatum*) which is rare in Essex. A detailed species composition is provided in Table A8.2.43, Table A8.2.44 and Table A8.2.45 in Annex E.

4.2.78 Community 39-01 was determined to comprise a poor example of W10a *Quercus robur – Pteridium aquilinum – Rubus fruticosus* woodland, typical subcommunity. This community qualified as lowland mixed deciduous woodland HPI.

Site 40 - Community 40-01

4.2.79 The grassland in Site 40 (see photograph A8.2.40 in Annex F) was unmanaged and dominated by tall grasses such as false oat-grass, meadow barley (*Hordeum secalinum*), meadow foxtail, Yorkshire-fog and common couch. Tall ruderal herbs (including broad-leaved willowherb *Epilobium montanum* and great willowherb *Epilobium hirsutum*) and climbing herbs (mainly field bindweed *Convolvulus arvensis*) were frequent, otherwise it was poor in forb species. There was significant (c. 10%) cover of scattered scrub and surrounding dense scrub encroached into the grassland. There was low-level impact from grazing and trampling by wild animals. A detailed species composition is provided in Table A8.2.46 in Annex E.

4.2.80 Community 40-01 comprised MG1a *Arrhenatherum elatius* (*Arrhenatheretum elatioris*) grassland, *Festuca rubra* subcommunity. This community did not qualify as HPI.

Section H - Thurrock Council

Site 41 - Community 41-01

4.2.81 Community 41-01 was an unmanaged area of land on a railway embankment (see photograph A8.2.41 in Annex F). It was only partially viewed due to access constraints, so full NVC survey was not undertaken. This site predominantly comprised tall (c. 7 m) mature shrub species (abundant blackthorn and occasional hawthorn), with scattered mature standard pedunculate oak and rarely wild cherry and apple (*Malus* sp.) at the eastern end. The southern edge had a dense understorey, but it was sparse where shaded by trees. The ground layer was dominated by common ivy and common nettle.

4.2.82 Community 41-01 comprised W22a *Prunus spinosa – Pteridium aquilinum* scrub, *Hedera helix – Silene dioica* sub-community. This community did not qualify as HPI.

Site 42

4.2.83 Site 42 was an extensive area comprising parkland associated with a recently built housing estate, Orsett Golf Course and a mosaic of grassland and scrub surrounding industrial land use.

4.2.84 The golf course was not subject to survey as it is designated as a site of County Importance to nature conservation known as Mucking Heath Complex LWS that supports woodland grassland and heathland communities of County importance. The areas of ‘rough’ on the golf course support acid grassland and heath communities that support Essex red list species. The invertebrate fauna is also known to be diverse including nationally scarce and locally rare species. The quarries that are adjacent to the golf courses and within the LWS site, but outside the Order Limits, are also known to support plant species that are Essex red list species and invertebrate species that are Species of Principal Importance.

4.2.85 Part of the site, Community 42-05 is within Buckingham Hill LWS.

Site 42 - Community 42-01

4.2.86 This was an area of developing grassland / open community on made ground with patches of bare ground (see photograph A8.2.42 in Annex F). There were distinct areas where grasses such as rat’s-tail fescue and Yorkshire-fog were abundant, and

others dominated by shrubs. Goat's-rue (*Galega officinalis*) a non-native invasive plant species was frequent throughout and surrounded by scrub. Stress tolerant annuals were also frequent. A detailed species composition is provided in Table A8.2.47 in Annex E.

4.2.87 Early forget-me-not (*Myosotis ramosissima*), a species listed on the Essex Red Data List, was recorded within this community. Wild clary (*Salvia verbenaca*), a species listed as 'Near Threatened' on the England Red List was recorded nearby.

4.2.88 Community 42-01 was not a close fit to a grassland or open vegetation plant community in the NVC. This habitat has formed on a mineral extraction site and is part of a larger area of open mosaic habitat on previously developed land which is HPI.

Site 42 - Community 42-02

4.2.89 Quarry to the east of Buckingham Hill Road with areas of open mosaic habitat with bare ground and early successional communities (see photograph A8.2.43 in Annex F). Frequent common mouse-ear (*Cerastium fontanum*), Yorkshire-fog and mosses. Abundant rat's-tail fescue. A detailed species composition is provided in Table A8.2.48 in Annex E.

4.2.90 Community 42-02 was not a close for to a grassland or open vegetation plant community in the NVC. This habitat has formed on a mineral extraction site and is part of a larger area of open mosaic habitat on previously developed land which is HPI.

Site 42 - Community 42-03

4.2.91 This was an area of arid acid grassland with a large amount of scattered scrub (see photograph A8.2.44 in Annex F). It was located to the north and west of Site 42, extending within a narrow strip of land towards the south along the site boundary. It was horse grazed. It was very dry during the survey, which limited full species identification. Grasses included abundant smooth meadow-grass (*Poa pratensis*), and frequent false oat grass, cock's-foot, Yorkshire-fog, soft-brome, smaller cat's-tail (*Phleum bertolonii*), rat's-tail fescue, common bent, sheep's / red fescue (*Festuca ovina / F. rubra*). There was also frequent red bartsia (*Odontites vernus*), common ragwort (*Jacobaea vulgaris*), spear thistle (*Cirsium vulgare*), goat's-rue, ribwort plantain, common cudweed, common centaury (*Centaurium erythraea*), hare's-foot clover (*Trifolium arvense*), lesser hawkbit (*Leontodon saxatilis*) and mosses. This section was more diverse than adjacent community 42-04 but was less typical of a community due to the presence of more ruderal species. A detailed species composition is provided in Table A8.2.49, Annex E.

4.2.92 Community 42-03 most closely resembled U1d *Festuca ovina – Agrostis capillaris – Rumex acetosella* grassland, *Anthoxanthum odoratum – Lotus corniculatus* sub-community. This community qualified as lowland dry acid grassland HPI.

Site 42 - Community 42-04

4.2.93 This habitat was adjacent to acid grassland and mixed scrub and was dominated by goat's-rue and other tall ruderal species, with abundant false oat-grass underneath (see photograph A8.2.45 in Annex F). There were some open areas (trampled and grazed by horses) and an informal track where goat's-rue did not dominate, and grasses were present (mainly false oat-grass). It may have previously been acid grassland but has become dominated by competitive species. Scrub encroachment was approximately 10%.

4.2.94 Community 42-04 was determined to resemble MG1b *Arrhenatherum elatius* (*Arrhenatheretum elatioris*) grassland, *Urtica dioica* subcommunity. This plant community is not HPI.

Site 42 - Community 42-05

4.2.95 Located within Buckingham Hill LWS, Community 42-05 comprised mainly a short sward with acidic species (such as sheep's sorrel and patches of moss and lichen surrounded by gorse) particularly in southern section (see photograph A8.1.46 in Annex F), with large parts succeeding to tall competitive grassland (false oat-grass and Yorkshire-fog) (see photograph A8.2.47 in Annex F). It was partly mown in the northern section and there was relatively high-level impact from rabbit grazing. A detailed species composition is provided in Table A8.2.50 in Annex E.

4.2.96 Community 42-05 was determined to resemble U1b *Festuca ovina – Agrostis capillaris - Rumex acetosella* grassland, typical sub-community, although it was developing towards MG1 in parts. This community qualified as lowland dry acid grassland HPI. This habitat has formed on a mineral extraction site and is part of a larger area of open mosaic habitat on previously developed land which is also HPI.

4.2.97 This part of the site is within Buckingham Hill LWS a site of county importance to nature conservation. The LWS is an area of unimproved acid grassland and open mosaic habitat on previously developed land that supports plant species that are nationally scarce and Essex red data book species and the Species of Principal Importance brown carder-bee (*Bombus humilis*).

4.3 Summary

4.3.1 The only irreplaceable habitat recorded during these surveys within the Order Limits was ancient woodland, which had been confirmed within the Order Limits as part of the desk study. Table A8.2.2 below summarises the results of the surveys.

Table A8.2.2 NVC survey results summary

Project Section	Community Reference	Community / Sub-community Type	Is it an HPI?	Is it an Irreplaceable habitat?
A	03-01	W8d Fraxinus excelsior - Acer campestre - Mercurialis perennis woodland, Hedera helix	Lowland mixed deciduous woodland	No
A	07-01	W8d Fraxinus excelsior - Acer campestre - Mercurialis perennis woodland, Hedera helix	Lowland mixed deciduous woodland	No
A	12-01	MG13 Agrostis stolonifera - Alopecurus geniculatus grassland	Coastal and lowland floodplain grazing marsh	No

Project Section	Community Reference	Community / Sub-community Type	Is it an HPI?	Is it an Irreplaceable habitat?
A	12-03	MG13 Agrostis stolonifera - Alopecurus geniculatus grassland	Coastal and lowland floodplain grazing marsh	No
A	12-04	S6 Carex riparia swamp	Coastal and lowland floodplain grazing marsh	No
B	13-01	Not classified, damp neutral grassland	None	No
B	14-01	W8a Fraxinus excelsior - Acer campestre - Mercurialis perennis woodland, Primula vulgaris, Glechoma hederacea	Lowland mixed deciduous woodland	No
B	17-01	W8f Fraxinus excelsior - Acer campestre - Mercurialis perennis woodland, Allium ursinum	Lowland mixed deciduous woodland	No
B	18-01	MG1a Arrhenatherum elatius grassland, Festuca rubra	None	No
C	19-01	Transition between a damp grassland community and a grassland/swamp community.	No	No
C	19-02	Transition between S6 Carex riparia swamp and S7 Carex acutiformis swamp.	No	No
C	19-03	W6a Alnus glutinosa - Urtica dioica woodland, typical	Lowland mixed deciduous woodland	No
C	22-01	W10d Quercus robur - Pteridium aquilinum - Rubus fruticosus woodland, Holcus lanatus	Lowland mixed deciduous woodland	No
C	23-01	S6 Carex riparia swamp	Coastal and lowland floodplain grazing marsh	No

Project Section	Community Reference	Community / Sub-community Type	Is it an HPI?	Is it an Irreplaceable habitat?
C	23	MG7 Lolium perenne leys and related grasslands	No	No
C	24-01	S6 Carex riparia swamp	Coastal and lowland floodplain grazing marsh	No
C	26-01	S14c Sparganium erectum swamp, Mentha aquatica	None	No
C	26-02	U1c Festuca ovina - Agrostis capillaris - Rumex acetosella grassland, Erodium cicutarium-Teesdalia nudicaulis	Lowland dry acid grassland	No
C	26-03	W6a Alnus glutinosa - Urtica dioica woodland, typical	Lowland mixed deciduous woodland	No
C	26-04	Other neutral grassland	No	No
C	26-05	U1c Festuca ovina - Agrostis capillaris - Rumex acetosella grassland, Erodium cicutarium-Teesdalia nudicaulis	Lowland dry acid grassland	No
C	27-01	U1b Festuca ovina - Agrostis capillaris - Rumex acetosella grassland, typical	Lowland dry acid grassland	No
C	28-01	MG1c Arrhenatherum elatius grassland, Filipendula ulmaria	None	No
C	29-01	Plantation woodland	No	No
D	31-01	W6d Alnus glutinosa - Urtica dioica woodland, Sambucus nigra	Lowland mixed deciduous woodland	No
F	36-01	W10a Quercus robur - Pteridium aquilinum - Rubus fruticosus woodland, typical	Lowland mixed deciduous woodland	No
G	39-01	W10a Quercus robur - Pteridium aquilinum - Rubus fruticosus woodland, typical	Lowland mixed deciduous woodland	No

Project Section	Community Reference	Community / Sub-community Type	Is it an HPI?	Is it an Irreplaceable habitat?
G	40-01	MG1a Arrhenatherum elatius grassland, Festuca rubra	None	No
H	41-01	W22a Prunus spinosa - Rubus fruticosus scrub, Hedera helix-Silene dioica	None	No
H	42	Mucking Heath Complex LWS known to support HPI within Order Limits	Lowland mixed deciduous woodland, lowland dry acid grassland	No
H	42-01	Transitional habitat open vegetation to grassland	Open mosaic habitat on previously developed land	No
H	42-02	Transitional habitat open vegetation to grassland	Open mosaic habitat on previously developed land	No
H	42-03	U1d Festuca ovina - Agrostis capillaris - Rumex acetosella grassland, Anthoxanthum odoratum-Lotus corniculatus	Lowland dry acid grassland	No
H	42-04	MG1b Arrhenatherum elatius grassland, Urtica dioica	No	No
H	42-05	Buckingham Hill LWS U1b Festuca ovina - Agrostis capillaris - Rumex acetosella grassland, typical	Lowland dry acid grassland and open mosaic habitat on previously developed land	No

4.4 Conclusion

4.4.1 A total of 42 sites were selected for NVC site survey of the basis of a review of desk study information. Where access was available these sites were subject to survey to ascertain whether they had the potential to support HPI. Where access was not granted or practicable for reasons of health and safety, information was gathered from a place of safety.

4.4.2 HPI were present, within the Order Limits, in 16 of the 42 sites that were subject to survey as identified in Table A8.2.3 below. Results are shown on Figure A8.2.1: National Vegetation Classification Survey Map in Annex A.

Table A8.2.3 NVC survey results conclusion

Sites with HPI	Project Section	HPI Recorded
3, 7	A	Lowland mixed deciduous woodland
12	A	Coastal and floodplain grazing marsh
14, 17	B	Lowland mixed deciduous woodland
19, 22, 26	C	Lowland mixed deciduous woodland
23, 24	C	Coastal and floodplain grazing marsh
26, 27	C	Lowland dry acid grassland
31	D	Lowland mixed deciduous woodland
36	F	Lowland mixed deciduous woodland
39	G	Lowland mixed deciduous woodland
42	H	Lowland mixed deciduous woodland
42	H	Lowland dry acid grassland
42	H	Open mosaic habitat on previously developed land

Abbreviations

Abbreviation	Full Reference
CIEEM	Chartered Institute of Ecology and Environmental Management
CSE	Cable Sealing End
CWS	County Wildlife Site
DAFOR	Dominant, Abundant, Frequent, Occasional and Rare
DCO	Development Consent Order
DEFRA	Department for the Environment, Food and Rural Affairs
EIA	Environmental Impact Assessment
ES	Environmental Statement
FISC	Field Identification Skills Certificate
GIS	Geographic Information System
HPI	Habitat of Principal Importance
JNCC	Joint Nature Conservation Committee
LWS	Local Wildlife Site
NERC	Natural Environment and Rural Communities Act 2006
NNR	National Nature Reserves
NVC	National Vegetation Classification
SAC	Special Areas of Conservation
SPA	Special Protection Area
SPI	Species of Principal Importance
SSSI	Site of Special Scientific Interest
S41	Section 41
WCA	Wildlife and Countryside Act

Glossary

Term	Description
Ancient Woodland	Land that has been continually wooded since at least 1600 in England. Regarded as 'irreplaceable habitat' in national planning guidance. Ancient woodland greater than 2 ha is recorded on the Natural England Ancient Woodland Inventory.
Ancient Woodland Inventory	A dataset managed by Natural England to identify and record information about Ancient Woodland sites in England.
Annex 1 Priority habitat	Annex 1 habitats are natural habitats identified by the European Union's Habitats Directive 1992 as needing special conservation efforts. These habitats are either at risk of disappearing, have a limited natural range, or are outstanding examples of their natural environment.
Biodiversity	The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.
Cable	An insulated conductor designed for underground installation.
County Wildlife Site	Non-statutory designated areas of land important for their wildlife and nature conservation value (Suffolk and Norfolk).
DAFOR	The name DAFOR is an acronym for the five abundance levels of flora recorded: Dominant, Abundant, Frequent, Occasional and Rare, the prefix 'L' is used before Abundant and Frequent to denote that the species is Locally Abundant or Frequent.
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.
European Protected Species	Animals and plants listed under the Habitats Directive and protected under the Conservation of Habitats and Species 2017, as amended.
Flora	The plants within a particular habitat or region.
Habitat	The natural home or environment of an animal, plant, or other organism.
Habitat of Principal Importance	A habitat which has been deemed to be of principal importance for the purpose of conserving biodiversity, currently adopted under Section 41 of the Natural Environment and Rural Communities Ac 2006, formerly listed in the UK Biodiversity Action Plan.
Haul road	A route used by construction traffic within the Order Limits to access a working area from a site access point.
Homogeneous Vegetation	A plant community or area of land where the vegetation is uniform in composition, structure, and species.

Term	Description
Invasive non-native species	An invasive non-native species is any non-native animal or plant that can spread, causing damage to the environment, the economy, health, and way of life.
Local Wildlife Site	Non-designated areas of land important for their wildlife and nature conservation value.
Mitigation	The action of reducing the severity and magnitude of change (impact) to the environment. Measures to avoid, reduce, remedy, or compensate for significant adverse effects.
National Vegetation Classification	A system of classifying natural habitat types in Great Britain according to their vegetation types.
Order Limits	The maximum extent of land within which the authorised development may take place.
Overhead Line	Conductor (wire) carrying electric current, strung from pylon to pylon.
Plant Community	A group of plant species that live and grow in the same area or habitat, interacting with each other and their environment.
Priority species	Species identified as of principal importance in England, in accordance with requirements of the Natural Environment and Rural Communities Act 2006. These are based on the UK Biodiversity Action Plan Priority Species.
Sites of Special Scientific Interest	SSSIs are protected by law under the Wildlife and Countryside Act 1981. They are important because they support rare or endangered fauna and flora, and they represent the United Kingdom's best wildlife and geological sites.
Species	A group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding.
Substation	Substations are used to control the flow of power through the electricity system. They are also used to change (or transform) the voltage from a higher to lower voltage to allow it to be transmitted to local homes and businesses.
Underground cable	An insulated conductor carrying electric current designed for underground installation. Underground cables link together two Cable Sealing End compounds.
Zone of Influence	The defined geographic area within which the project's environmental receptors are located.

Bibliography

Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (No. 579). [online] Available at: https://www.legislation.gov.uk/uksi/2019/579/contents (Accessed*:* 13 June 2025).

Countryside and Rights of Way Act 2000 (c.37). [online] Available at: https://www.legislation.gov.uk/ukpga/2000/37/contents (Accessed: 13 June 2025).https://www.legislation.gov.uk/ukpga/2000/37/contents (Accessed: 13 June 2025).

Department for Environment, Food and Rural Affairs (2024) *Statutory biodiversity metric: user guide.* [online] Available at: www.gov.uk/government/publications (Accessed: 13 June 2025).

Environment Act 2021 (c.30). [online] Available at: https://www.legislation.gov.uk/ukpga/2021/30/contents (Accessed: 13 June 2025).

Joint Nature Conservation Committee (1995–2019) *UK BAP Priority Species and Habitats.* [online] Available at: https://jncc.gov.uk/our-work/uk-bap-priority-habitats/ (Accessed: 13 June 2025).

Natural Environment and Rural Communities Act 2006 (c.16). [online] Available at: https://www.legislation.gov.uk/ukpga/2006/16/contents (Accessed: 13 June 2025).

Rodwell, J.S. (2006). *NVC Users' Handbook, JNCC, Peterborough.*

Rodwell, J.S. ed. (1991a) *British Plant Communities Volume 1: Woodlands and Scrub.* Cambridge University Press. Cambridge.

Rodwell, J.S. ed. (1991b) *British Plant Communities Volume 2: Mires and Heaths.* Cambridge University Press. Cambridge.

Rodwell, J.S. ed. (1992) *British Plant Communities Volume 3: Grasslands and Montane Communities.* Cambridge University Press. Cambridge.

Rodwell, J.S. ed. (1995) *British Plant Communities Volume 4: Aquatic Communities, Swamps and Tall Herb Fens.* Cambridge University Press. Cambridge.

Rodwell, J.S. ed. (2000) *British Plant Communities Volume 5: Maritime Communities and Vegetation of Open Habitats.* Cambridge University Press. Cambridge.

Stace, C.A. (2019) *New Flora of the British Isles (Fourth Edition).* C & M Floristics. Suffolk.

*Wildlife and Countryside Act 1981 (*c.69). [online] Available at: https://www.legislation.gov.uk/ukpga/1981/69 (Accessed: 13 June 2025).

Annex A. Figures

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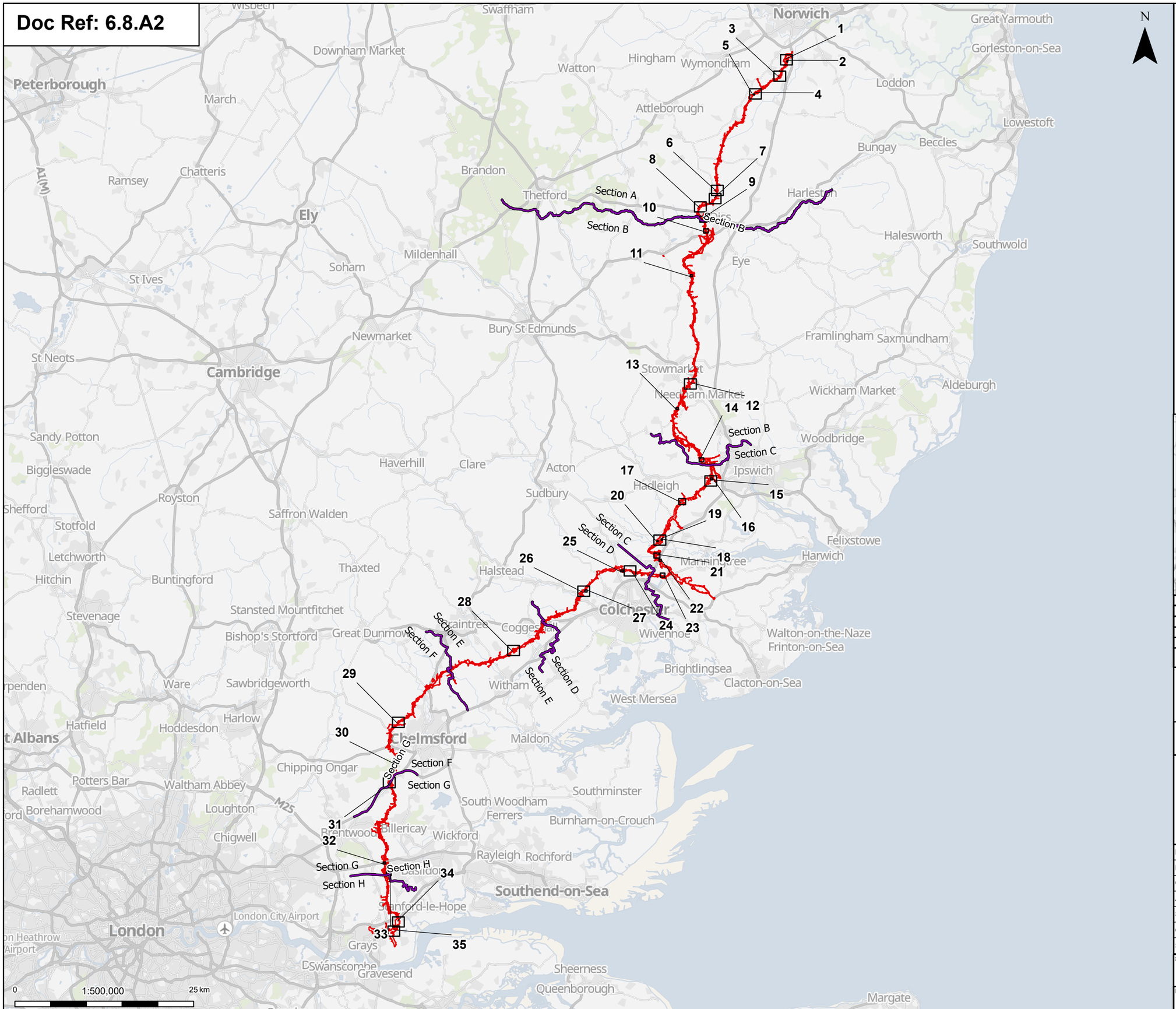
Annex A
Figures

Figure A8.2.1 - National Vegetation Classification Survey Map

Doc Ref: 6.8.A2



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Pages
Project section line

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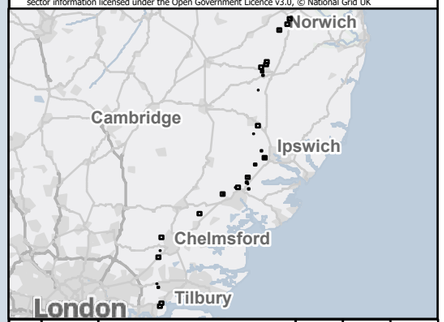

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Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map Overview

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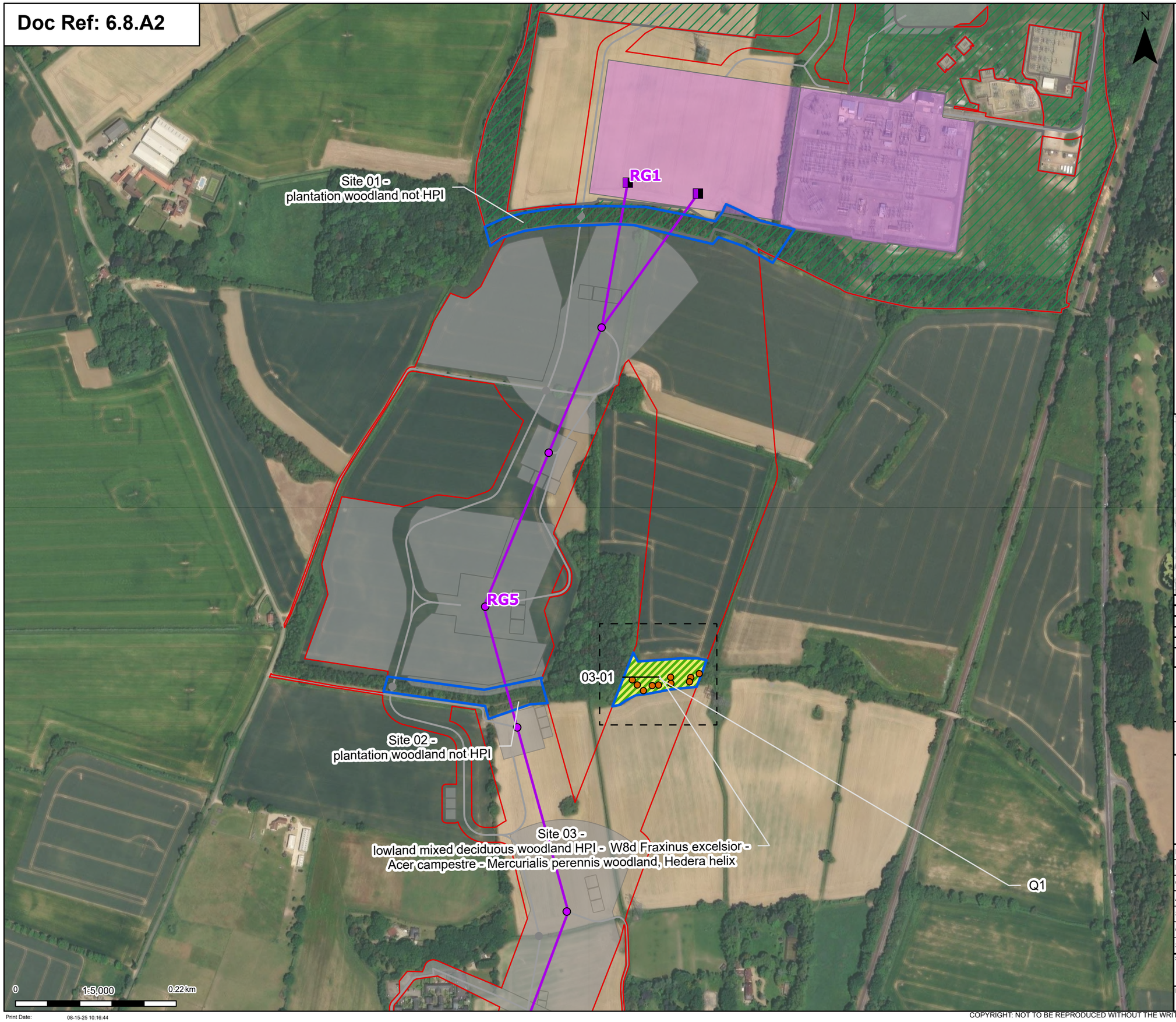

- Order limits

Proposed project design details

- Proposed full line tension gantry
- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Norwich Main Substation
- Norwich Main Substation Extension (future baseline)
- Proposed environmental and mitigation area
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Woodland understorey/shrub layer/ Short woodland field layers quadrat
- Woodland canopy and shrub layer quadrat
- NVC survey area (03-01)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

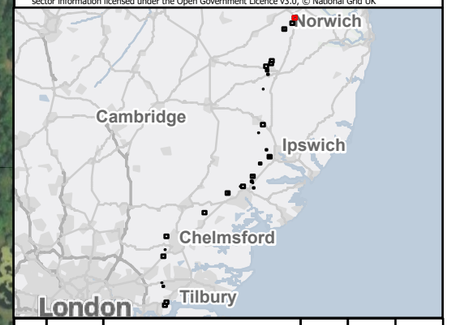

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Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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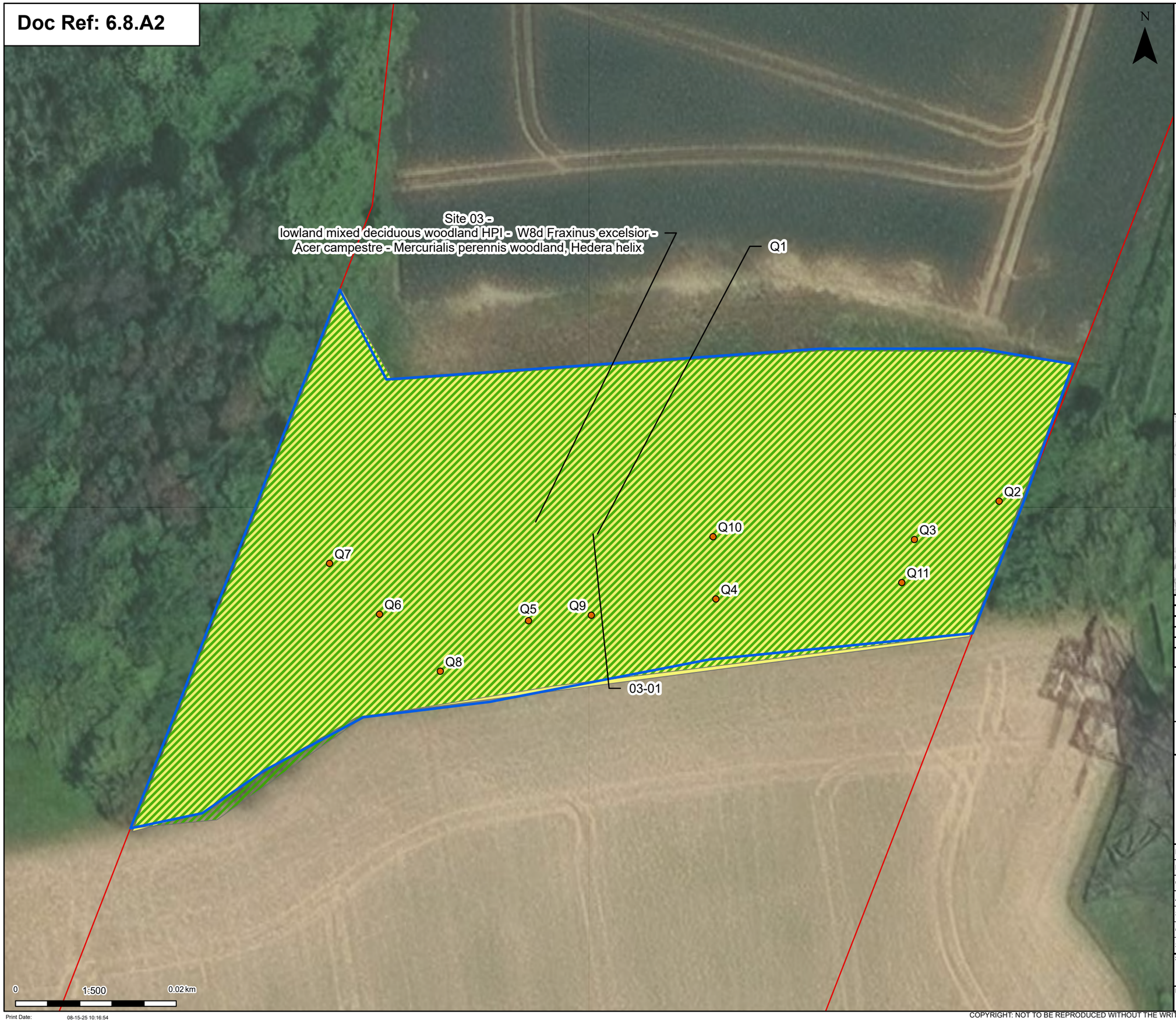

Order limits

Discipline specific constraints

- Woodland understorey/shrub layer/ Short woodland field layers quadrat
- Woodland canopy and shrub layer quadrat
- NVC survey area (03-01)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).

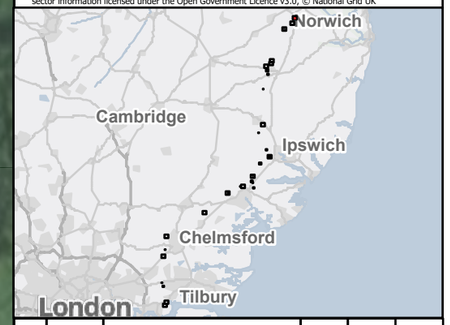

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Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Order limits

Proposed project design details

Proposed standard lattice pylon location

Proposed overhead line alignment

Other temporary and permanent construction and operational works

Discipline specific constraints

Site boundary

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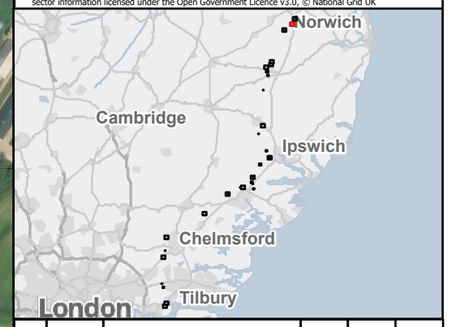

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Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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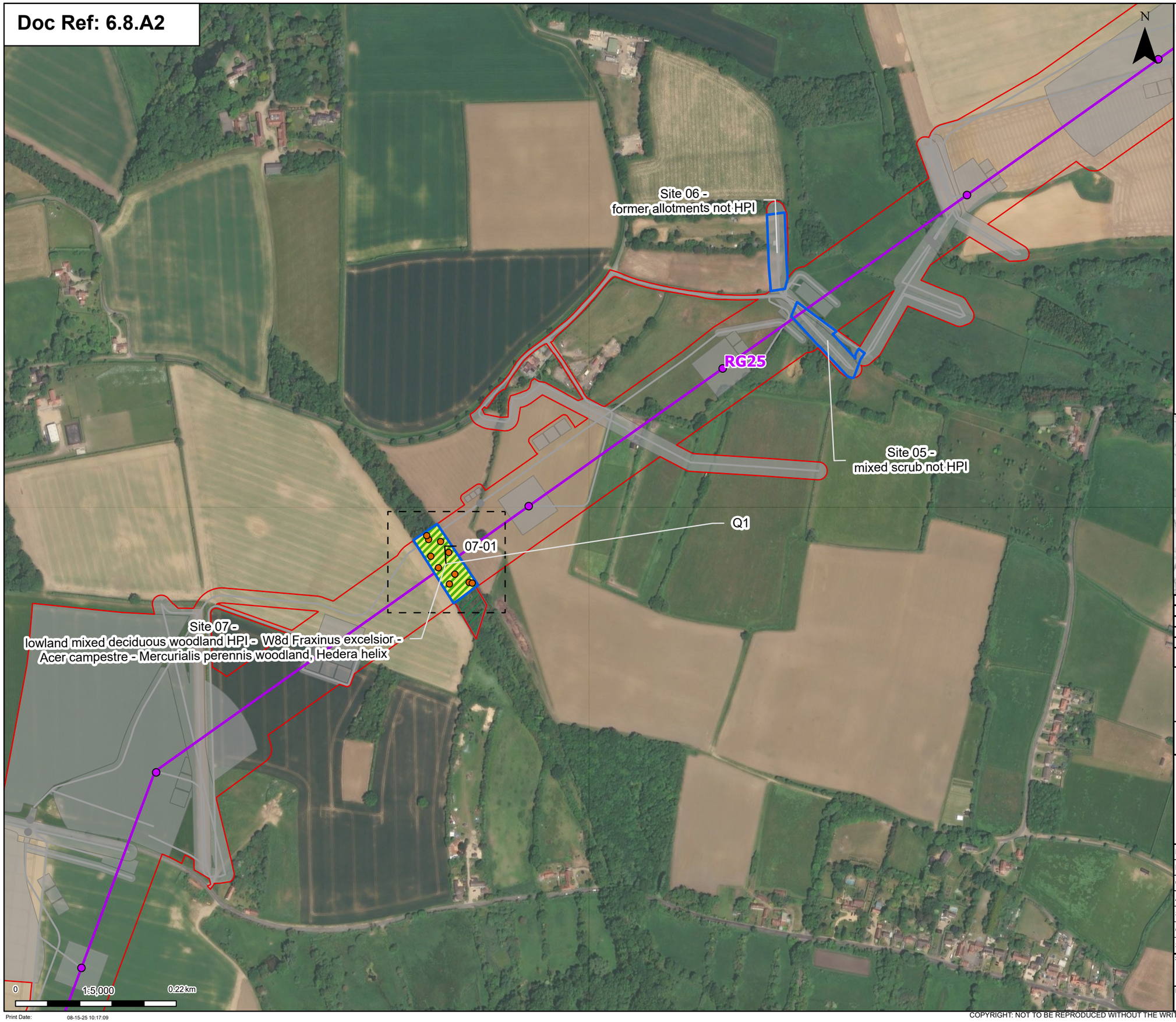

Order limits

Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed environmental and mitigation area
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Woodland understorey/shrub layer/ Short woodland field layers quadrat
- Woodland canopy and shrub layer quadrat
- NVC survey area (07-01)
- Site boundary

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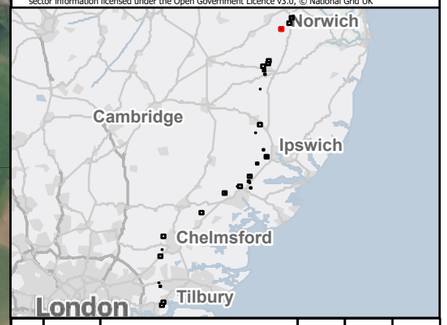

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Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Order limits

Proposed project design details

Proposed overhead line alignment

Proposed environmental and mitigation area

Discipline specific constraints

Woodland understorey/shrub layer/ Short woodland field layers quadrat

Woodland canopy and shrub layer quadrat

NVC survey area (07-01)

Site boundary

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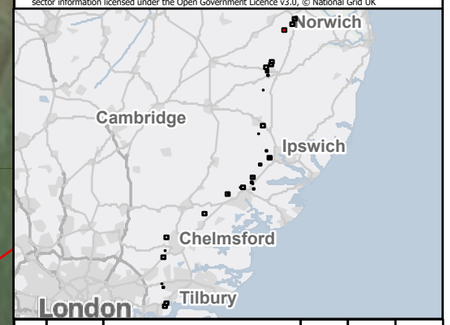

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Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Order limits

Proposed project design details

Proposed standard lattice pylon location

Proposed overhead line alignment

Other temporary and permanent construction and operational works

Discipline specific constraints

Site boundary

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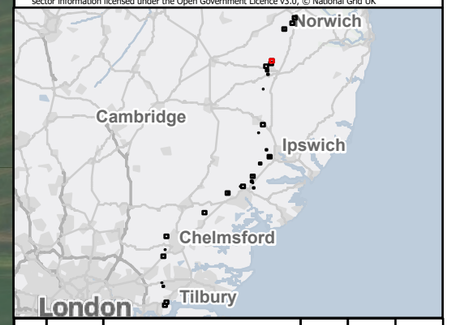

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
Scale:	1:5,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:

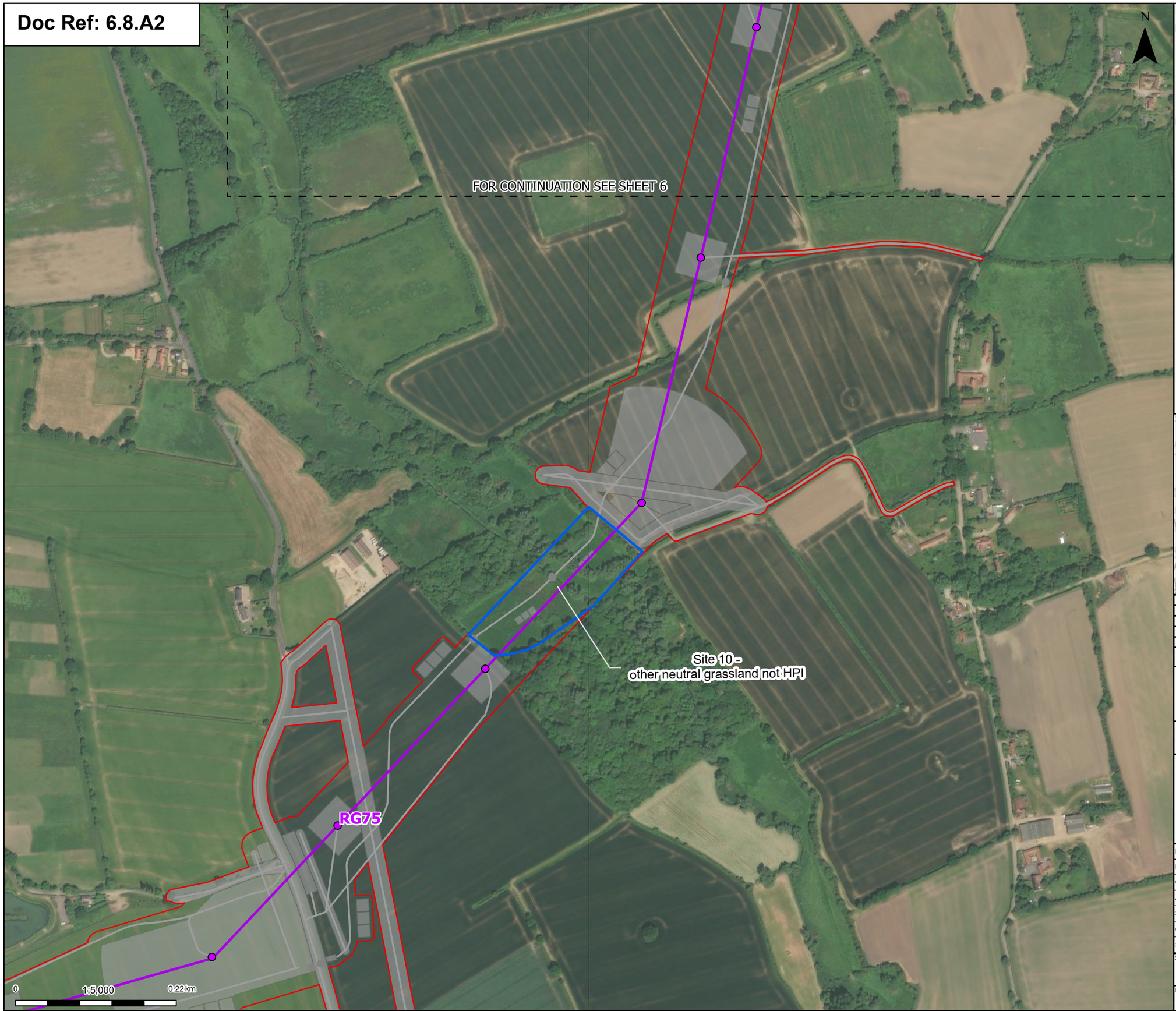
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Print Date: 08-15-25 10:17:27

Doc Ref: 6.8.A2



Order limits

Proposed project design details

Proposed standard lattice pylon location

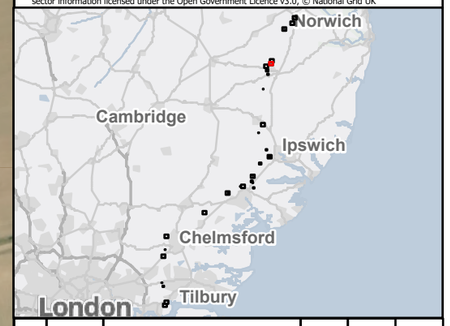
Proposed overhead line alignment

Other temporary and permanent construction and operational works

Discipline specific constraints

Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
Scale:	1:5,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219
Revision: A

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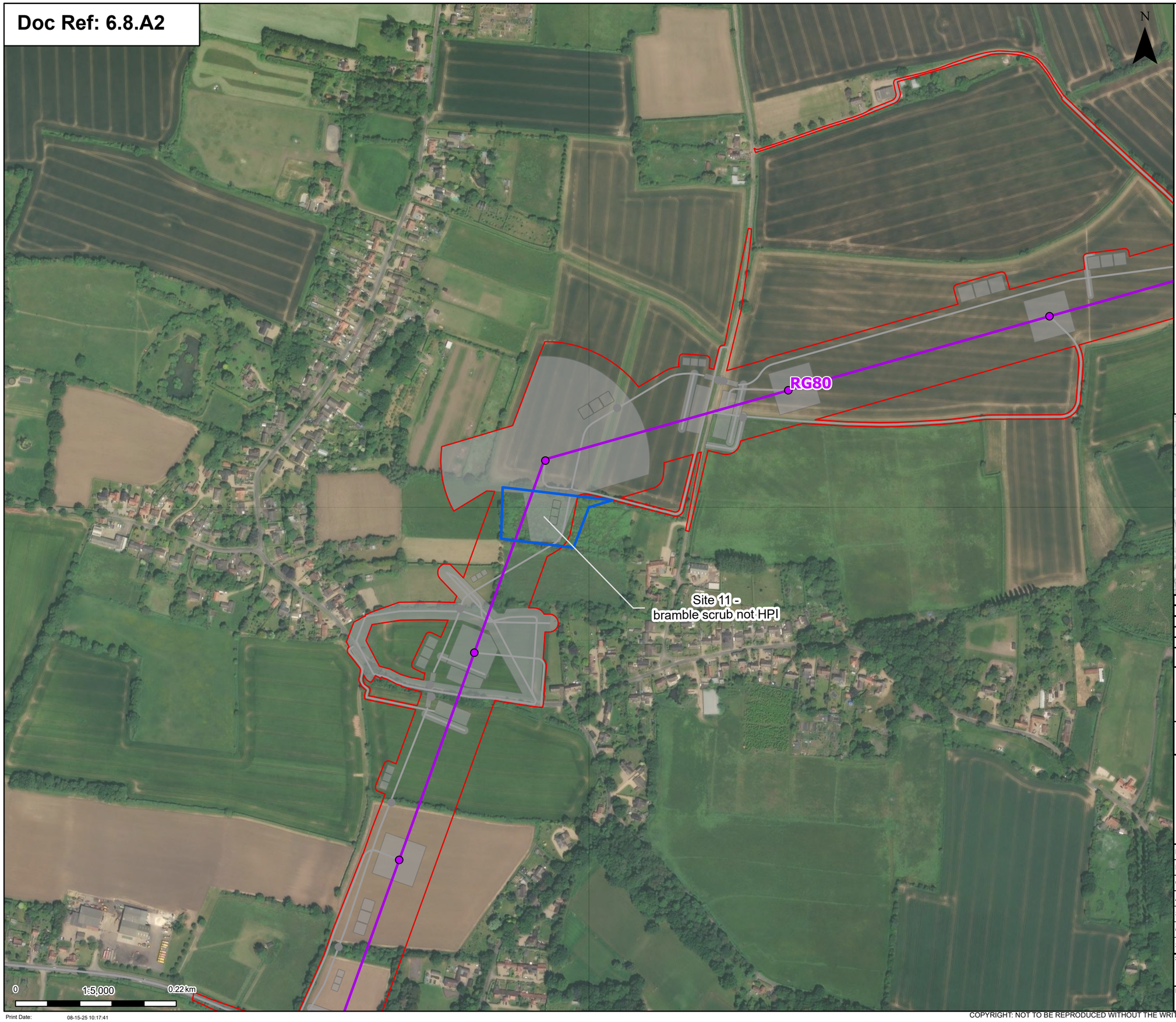
Doc Ref: 6.8.A2



Order limits

Proposed project design details

Proposed standard lattice pylon location

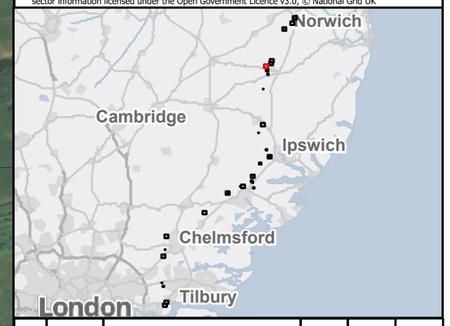
Proposed overhead line alignment

Other temporary and permanent construction and operational works

Discipline specific constraints

Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

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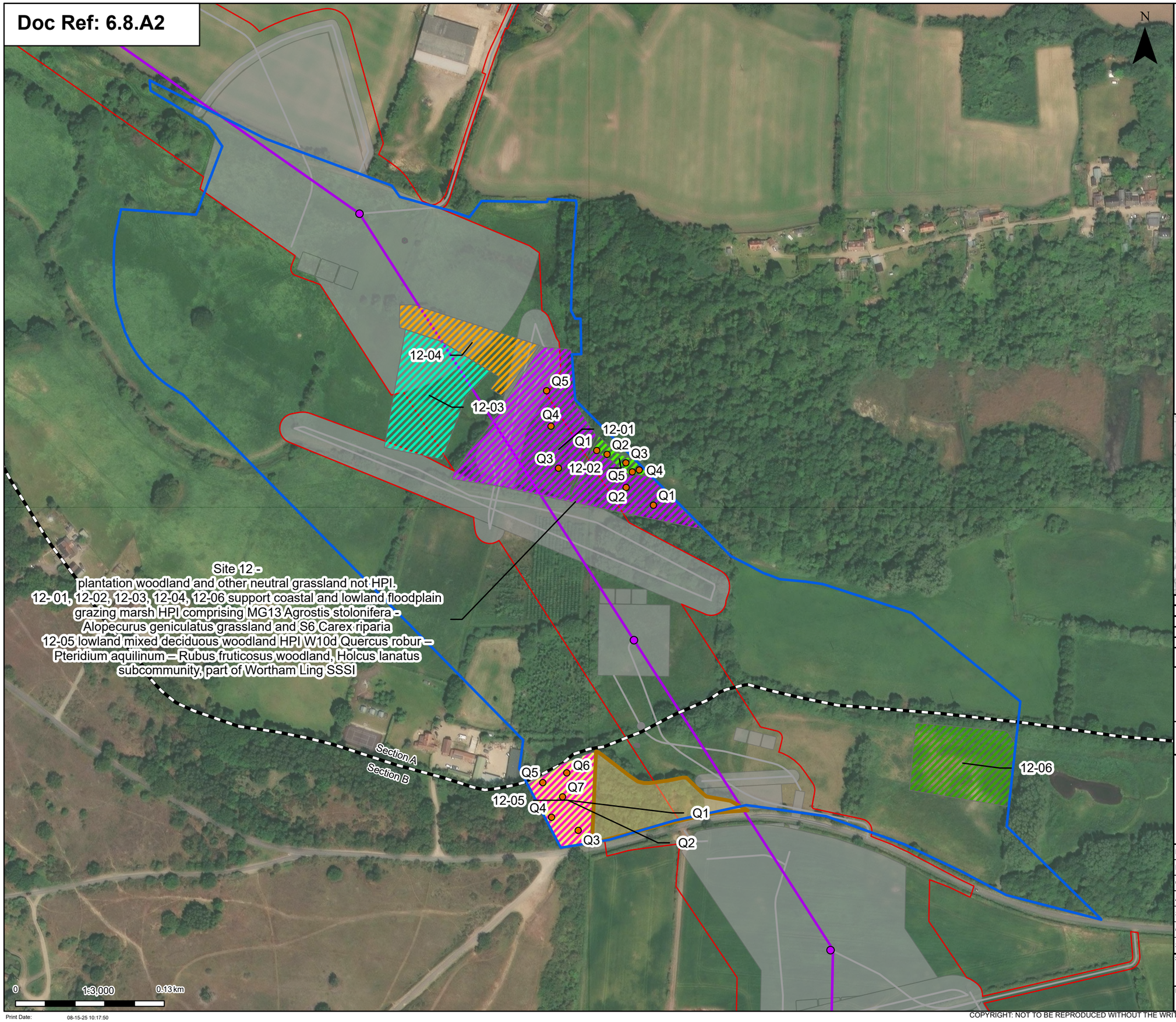


- Order limits
- Project section line

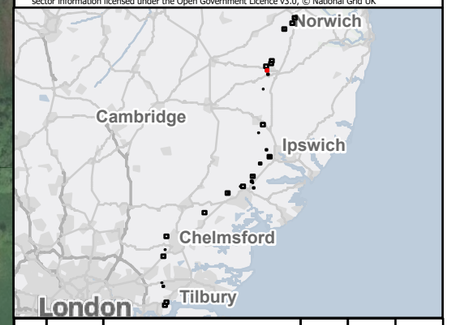
Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed environmental and mitigation area
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Herbaceous vegetation quadrat
- Woodland canopy and shrub layer quadrat
- NVC survey area (12-01)
- NVC survey area (12-02)
- NVC survey area (12-03)
- NVC survey area (12-04)
- NVC survey area (12-05)
- NVC survey area (12-06)
- Site boundary
- Other woodland; broadleaved (UK Habitat survey results)

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
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Approved	K. Burrows	Date	21 Aug 25
Scale:	1:3,000	Datum:	AOD
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Suitability Code:	A2	Project Number:	10059280

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- Order limits

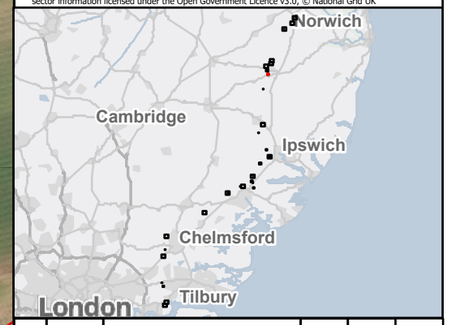
Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Herbaceous vegetation quadrat
- NVC survey area (13-01)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description: Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Print Date: 08-15-25 10:17:58

Doc Ref: 6.8.A2

Order limits

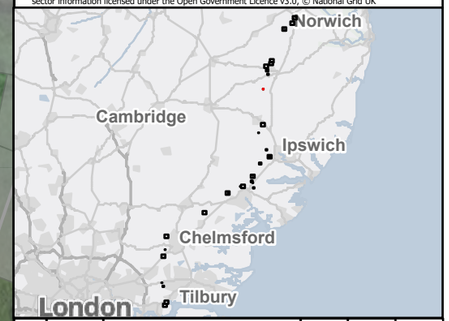
Proposed project design details

- Proposed overhead line alignment
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Herbaceous vegetation quadrat
- Woodland canopy and shrub layer quadrat - Q1, woodland understorey / shrub layer quadrat - Q2 and field layer quadrat - Q3
- NVC survey area (14-01)
- NVC survey area (14-02)
- Site boundary
- Lowland mixed deciduous woodland HPI (UK Habitat survey results)

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
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Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Print Date: 08-15-25 10:18:05

Doc Ref: 6.8.A2

Site 15 -
lagoon, disturbed land and arable land not HPI

Site 16 -
other neutral grassland not HPI

RG165

0 1:5,000 0.22 km

N

Order limits

Proposed project design details

Proposed standard lattice pylon location

Proposed overhead line alignment

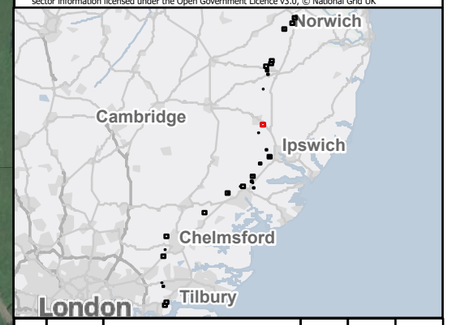
Proposed environmental and mitigation area

Other temporary and permanent construction and operational works

Discipline specific constraints

Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Print Date: 08-15-25 10:18:13

Doc Ref: 6.8.A2

Order limits

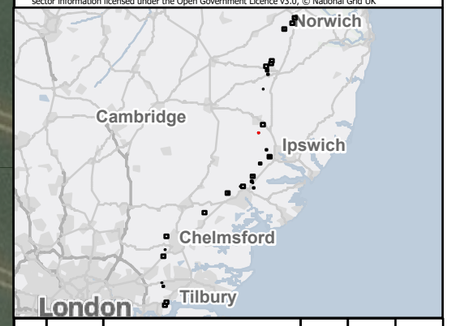
Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed environmental and mitigation area
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Woodland understorey/shrub layer/ herbaceous vegetation quadrat
- Woodland canopy and shrub layer quadrat
- NVC survey area (17-01)
- Site boundary
- Lowland mixed deciduous woodland HPI (UK Habitat survey results)

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
Page 13 of 35

Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
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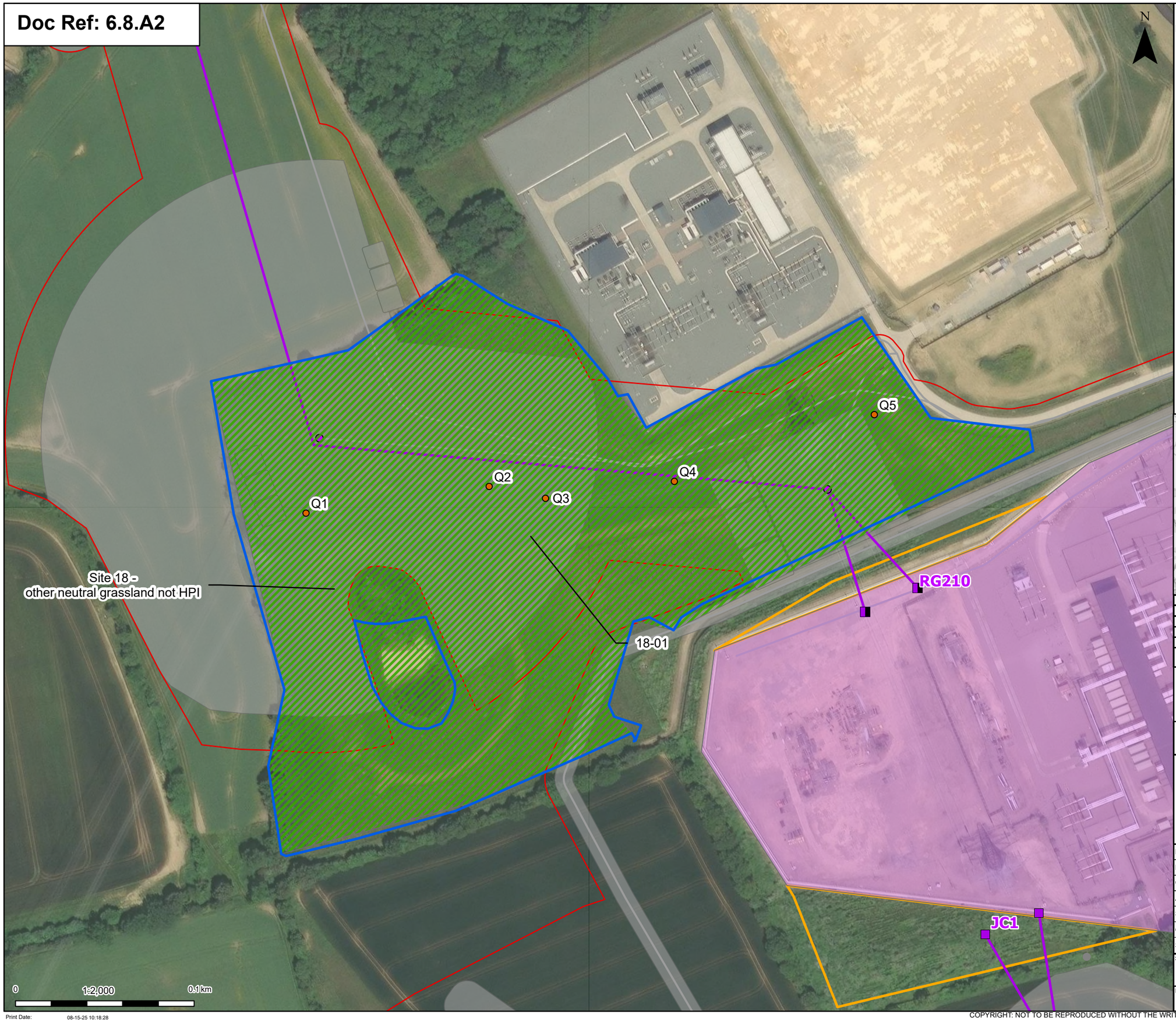
Scale:	1:1,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219
Revision: A

Print Date: 08-15-25 10:18:21

Doc Ref: 6.8.A2



Order limits

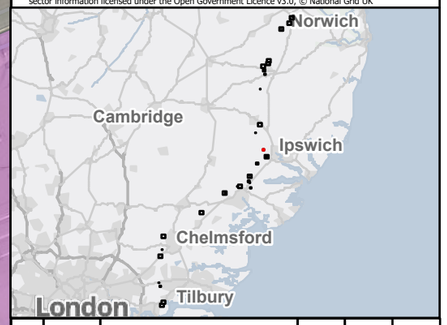
Proposed project design details

- Proposed full line tension gantry
- Proposed low duty gantry
- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Bramford Substation
- Bramford Substation Extension
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Herbaceous vegetation quadrat
- NVC survey area (18-01)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
Scale:	1:2,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

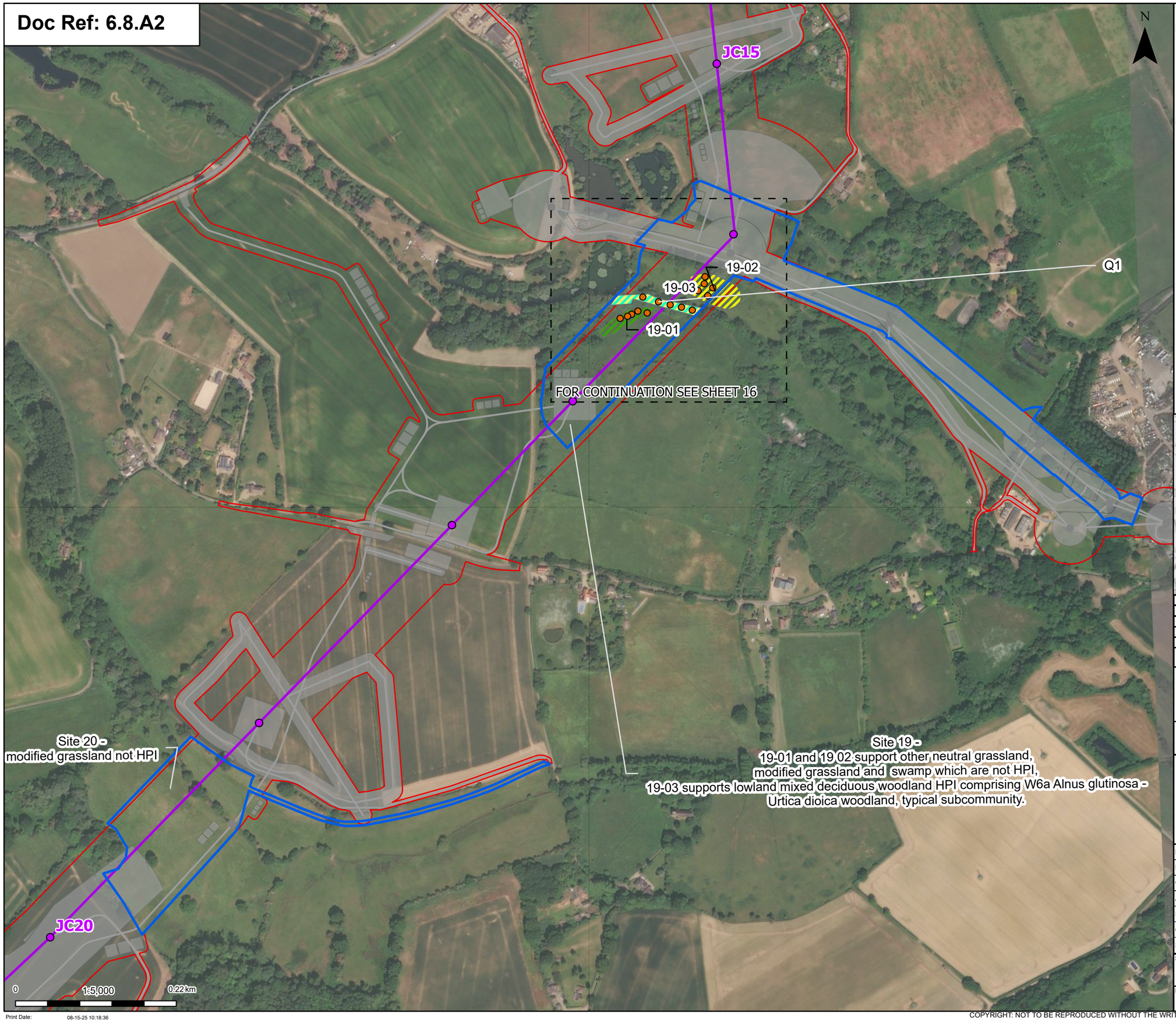
Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Print Date: 08-15-25 10:18:28

Doc Ref: 6.8.A2



Order limits

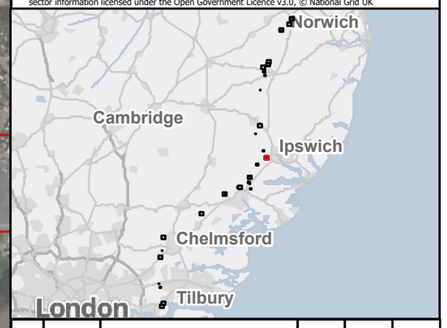
Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Short woodland field layers/ Herbaceous vegetation quadrat
- Woodland canopy and shrub layer quadrat
- NVC survey area (19-01)
- NVC survey area (19-02)
- NVC survey area (19-03)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
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Approved	K. Burrows	Date	21 Aug 25
Scale:	1:5,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

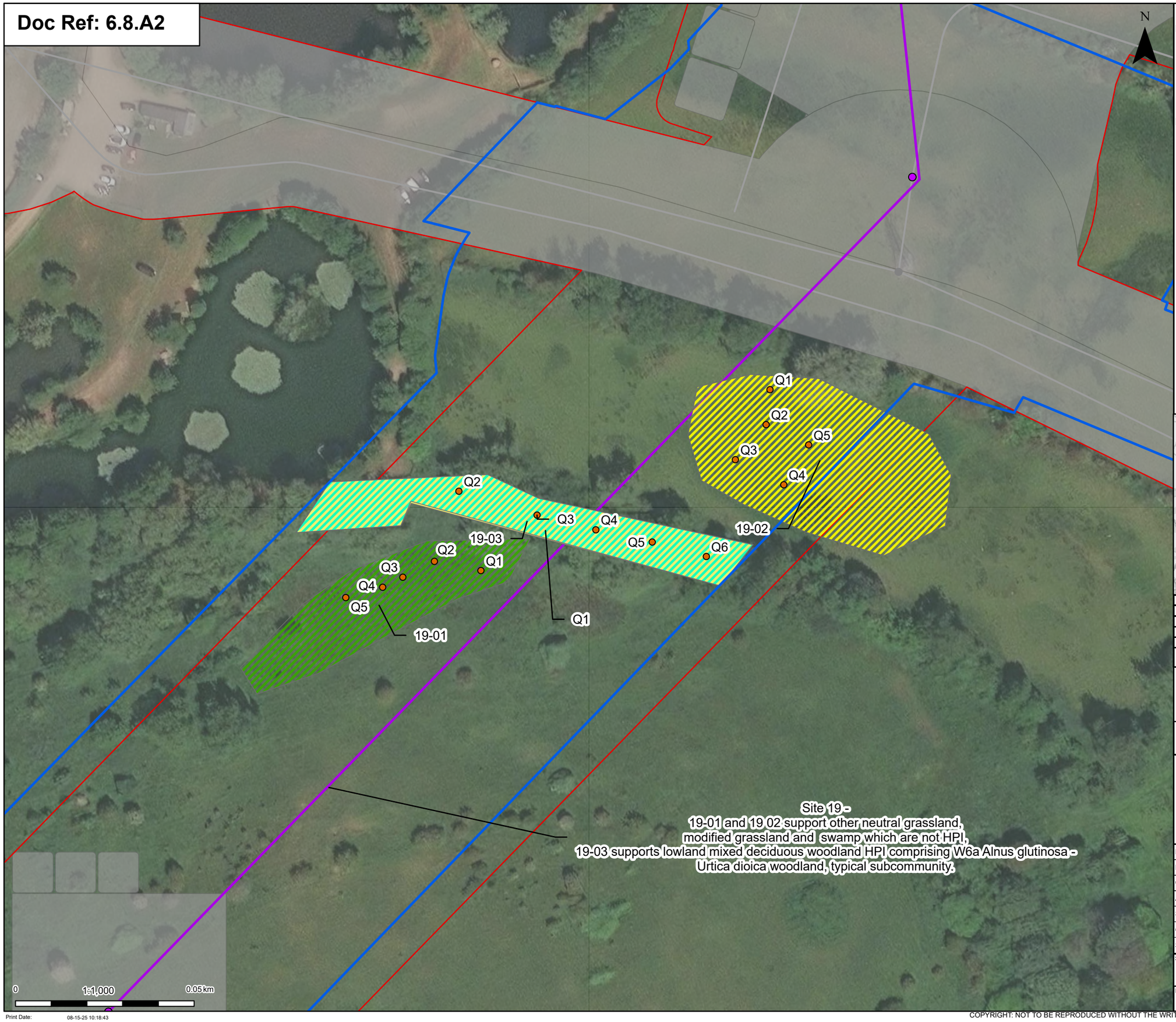
Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Print Date: 08-15-25 10:18:36

Doc Ref: 6.8.A2



Order limits

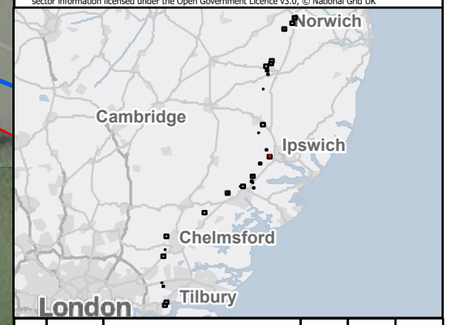
Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Short woodland field layers/ Herbaceous vegetation quadrat
- Woodland canopy and shrub layer quadrat
- NVC survey area (19-01)
- NVC survey area (19-02)
- NVC survey area (19-03)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
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Approved	K. Burrows	Date	21 Aug 25
Scale:	1:1,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

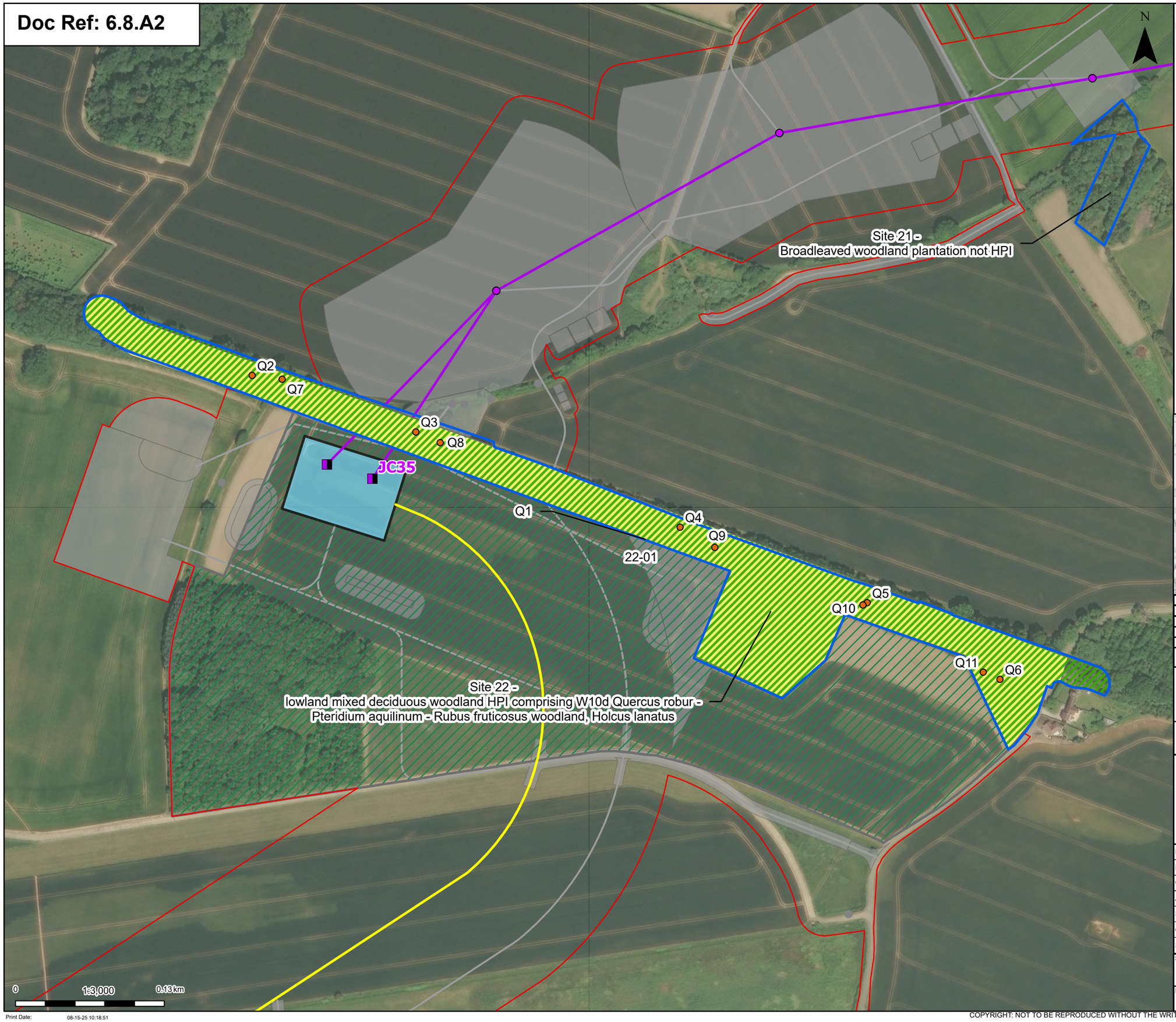
Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Print Date: 08-15-25 10:18:43

Doc Ref: 6.8.A2



- Order limits

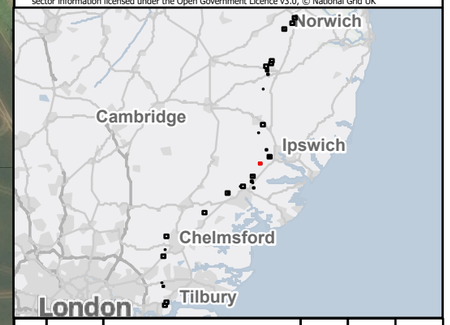
Proposed project design details

- Proposed full line tension gantry
- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed underground cable alignment
- Proposed cable sealing end compound (CSEC)
- Proposed environmental and mitigation area
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Woodland understorey/shrub layer/ Short woodland field layers quadrat
- Woodland canopy and shrub layer quadrat
- NVC survey area (22-01)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
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nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
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Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
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Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219
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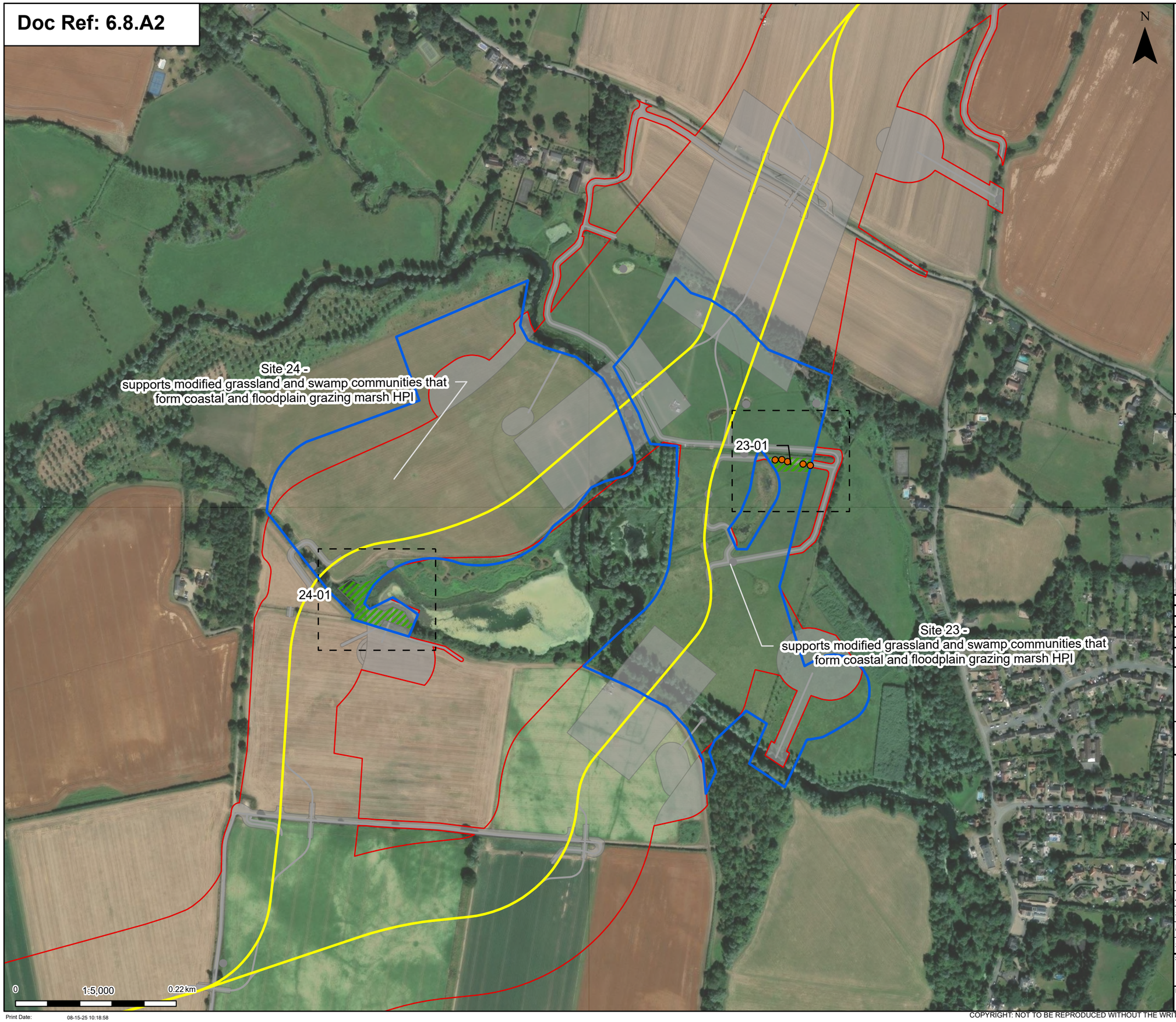


Order limits

Proposed project design details

Proposed underground cable alignment

Other temporary and permanent construction and operational works

Discipline specific constraints

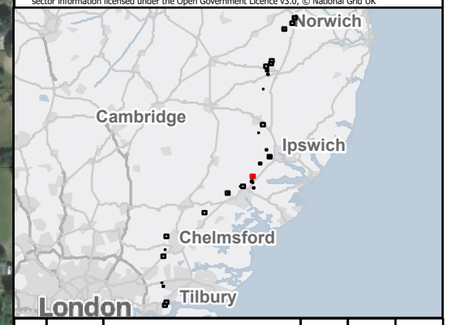
Herbaceous vegetation quadrat

NVC survey area (23-01)

NVC survey area (24-01)

Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
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Print Date: 08-15-25 10:19:08

Order limits

Proposed project design details

Proposed underground cable alignment

Other temporary and permanent construction and operational works

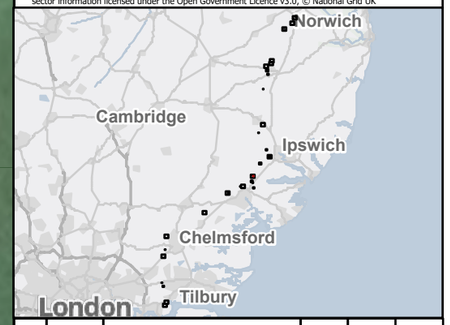
Discipline specific constraints

Herbaceous vegetation quadrat

NVC survey area (23-01)

Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
Scale:	1:500	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Doc Ref: 6.8.A2

Print Date: 08-15-25 10:19:18

Order limits

Proposed project design details

Proposed underground cable alignment

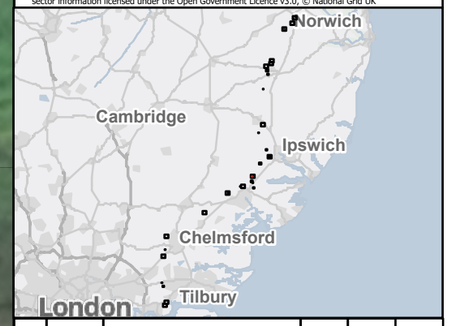
Other temporary and permanent construction and operational works

Discipline specific constraints

NVC survey area (24-01)

Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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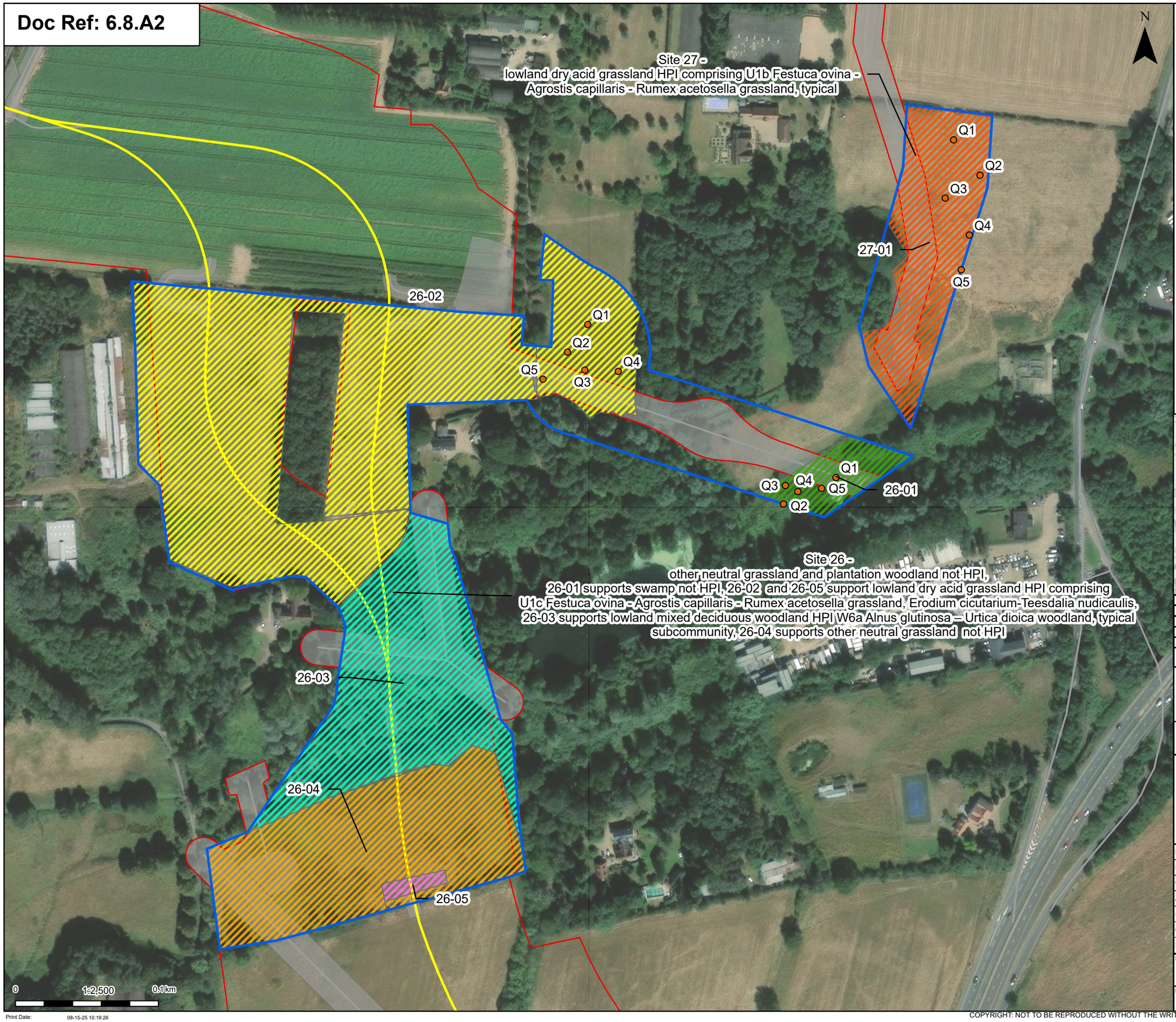
Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
Scale:	1:500	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Doc Ref: 6.8.A2



- Order limits

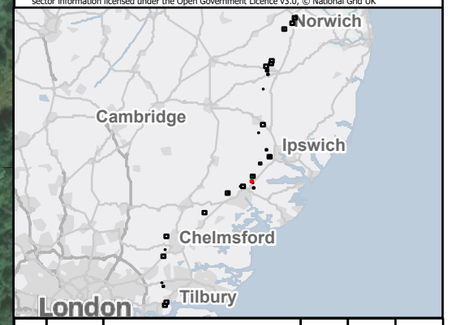
Proposed project design details

- Proposed underground cable alignment
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Herbaceous vegetation quadrat
- NVC survey area (26-01)
- NVC survey area (26-02)
- NVC survey area (26-03)
- NVC survey area (26-04)
- NVC survey area (26-05)
- NVC survey area (27-01)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
Scale:	1:2,500	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
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Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219
Revision: A

Print Date: 08-15-25 10:19:26

Doc Ref: 6.8.A2

- Order limits

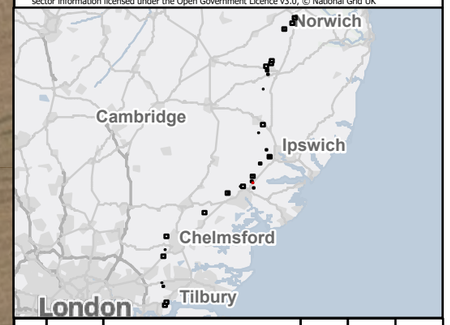
Proposed project design details

- Proposed underground cable alignment
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Herbaceous vegetation quadrat
- NVC survey area (28-01)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
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Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
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Approved	K. Burrows	Date	21 Aug 25
Scale:	1:1,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219
Revision: A

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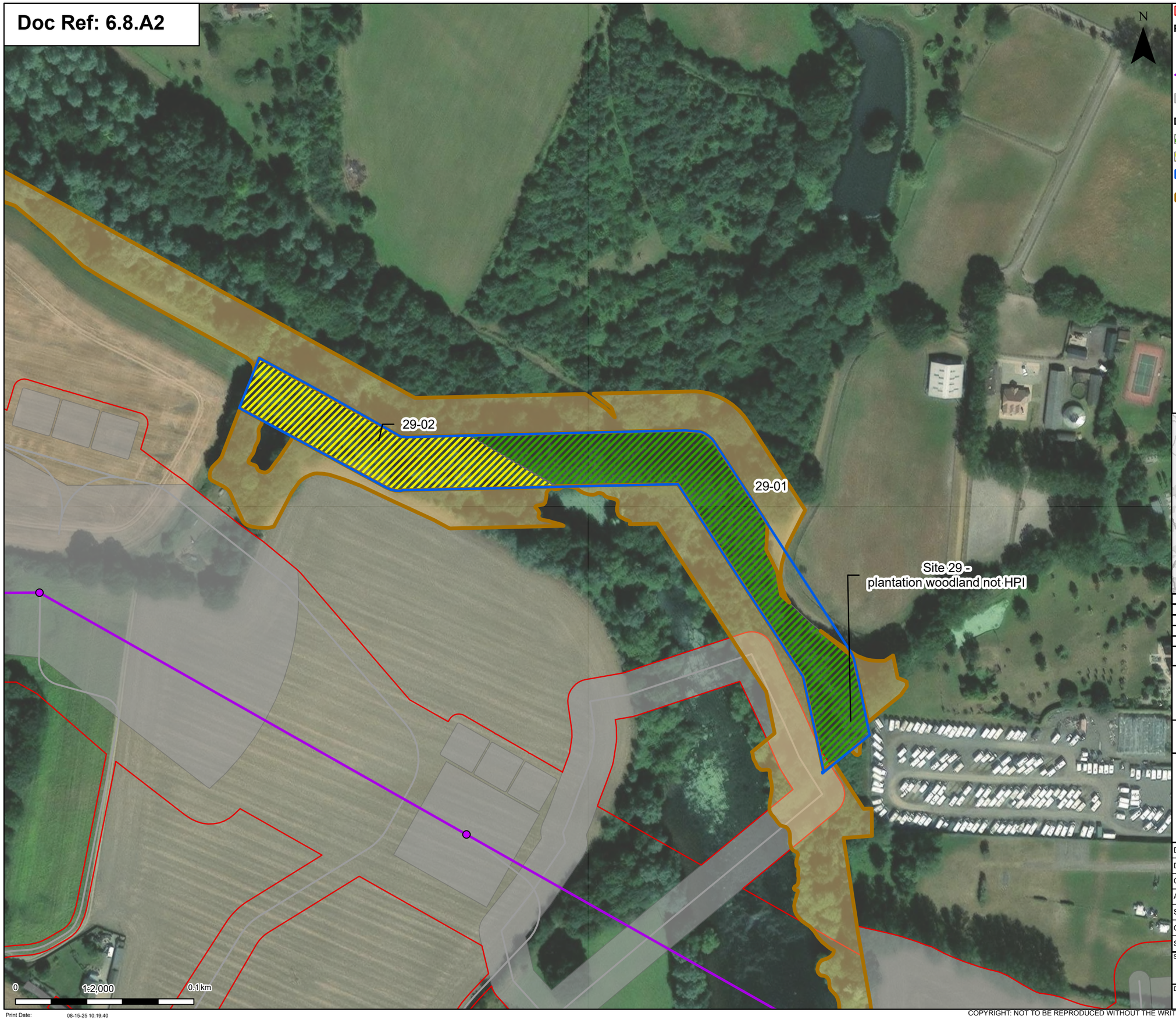
Doc Ref: 6.8.A2



Order limits

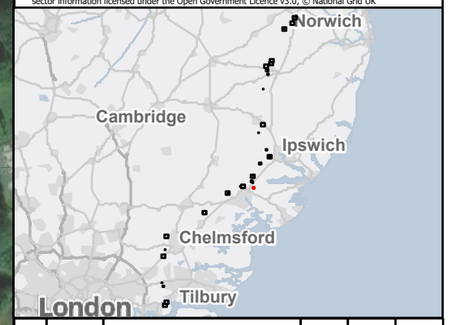
Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Other temporary and permanent construction and operational works

Discipline specific constraints

- NVC survey area (29-01)
- NVC survey area (29-02)
- Site boundary
- Other woodland; broadleaved (UK Habitat survey results)

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
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Approved	K. Burrows	Date	21 Aug 25
Scale:	1:2,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
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Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219
Revision: A

Print Date: 08-15-25 10:19:40

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Order limits

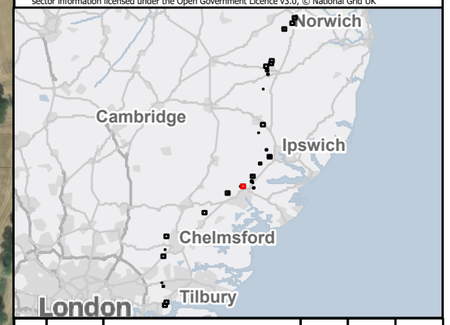
Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed environmental and mitigation area
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
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Approved	K. Burrows	Date	21 Aug 25
Scale:	1:5,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Print Date: 08-15-25 10:19:48

Doc Ref: 6.8.A2

Order limits

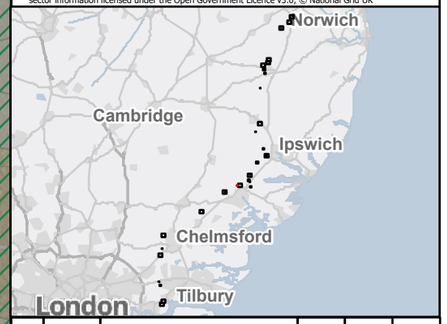
Proposed project design details

- Proposed full line tension gantry
- Proposed overhead line alignment
- Proposed underground cable alignment
- Proposed cable sealing end compound (CSEC)
- Proposed environmental and mitigation area
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Woodland understorey and canopy /shrub layer/ Short woodland field layers quadrat
- Woodland canopy and shrub layer quadrat
- NVC survey area (31-01)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
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Approved	K. Burrows	Date	21 Aug 25
Scale:	1:1,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

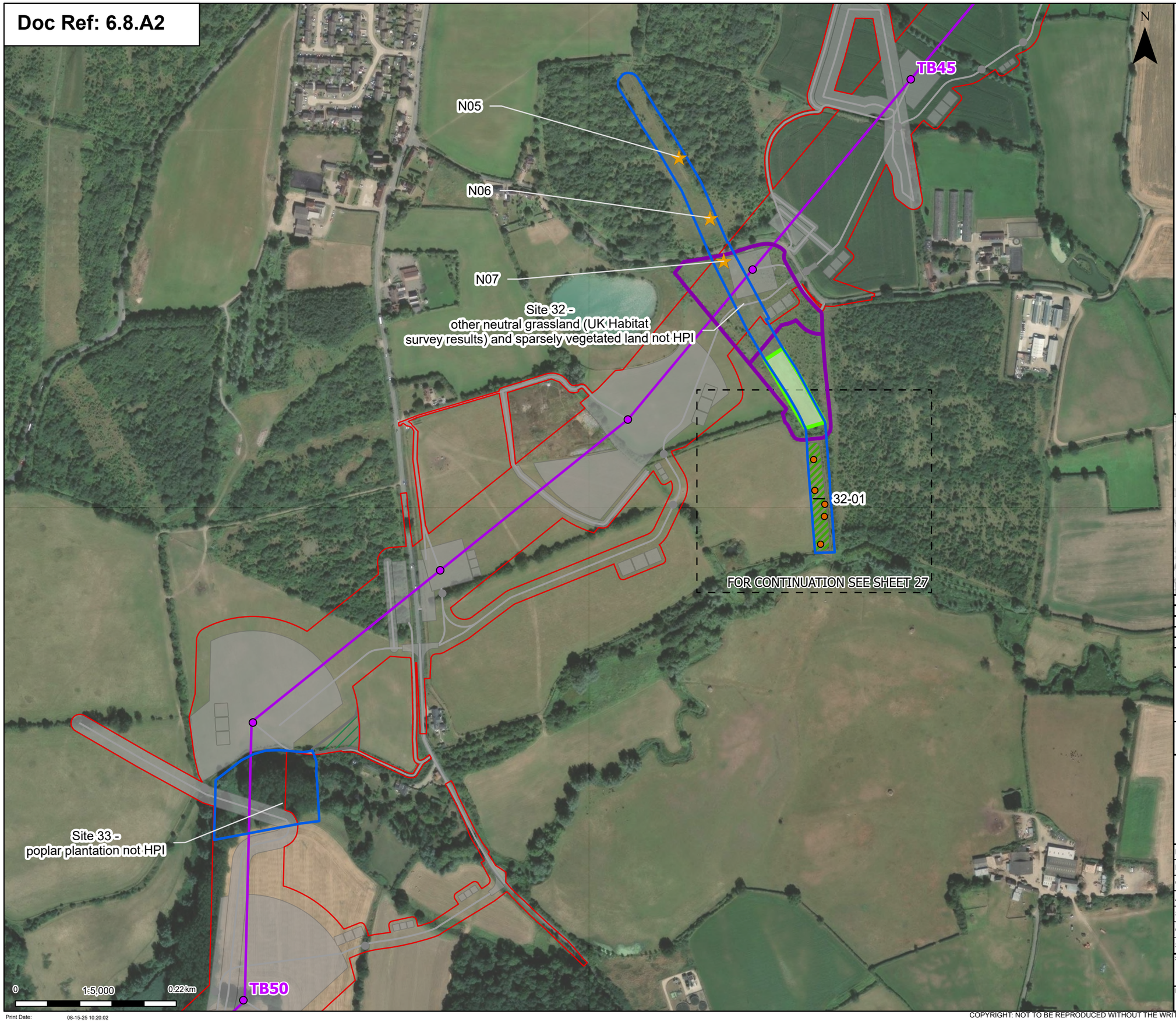
Suitability Description: Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Print Date: 08-15-25 10:19:55

Doc Ref: 6.8.A2



Order limits

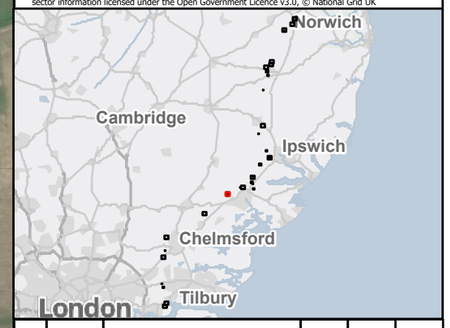
Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed environmental and mitigation area
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Notable Species
- Herbaceous vegetation quadrat
- NVC survey area (32-01)
- Site boundary
- Other neutral grassland (UK Habitat survey results)
- Sparsely vegetated land (UK Habitat survey results)

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
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Approved	K. Burrows	Date	21 Aug 25
Scale:	1:5,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Print Date: 08-15-25 10:20:02

Doc Ref: 6.8.A2

Order limits

Proposed project design details

Other temporary and permanent construction and operational works

Discipline specific constraints

Herbaceous vegetation quadrat

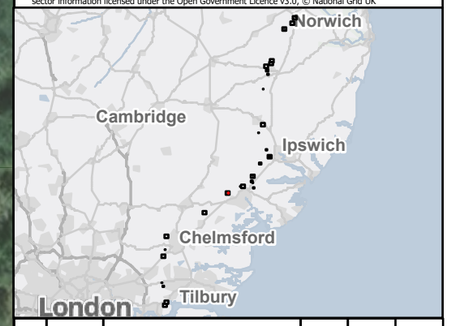
NVC survey area (32-01)

Site boundary

Other neutral grassland (UK Habitat survey results)

Sparsely vegetated land (UK Habitat survey results)

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
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Approved	K. Burrows	Date	21 Aug 25
Scale:	1:1,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

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Revision: A

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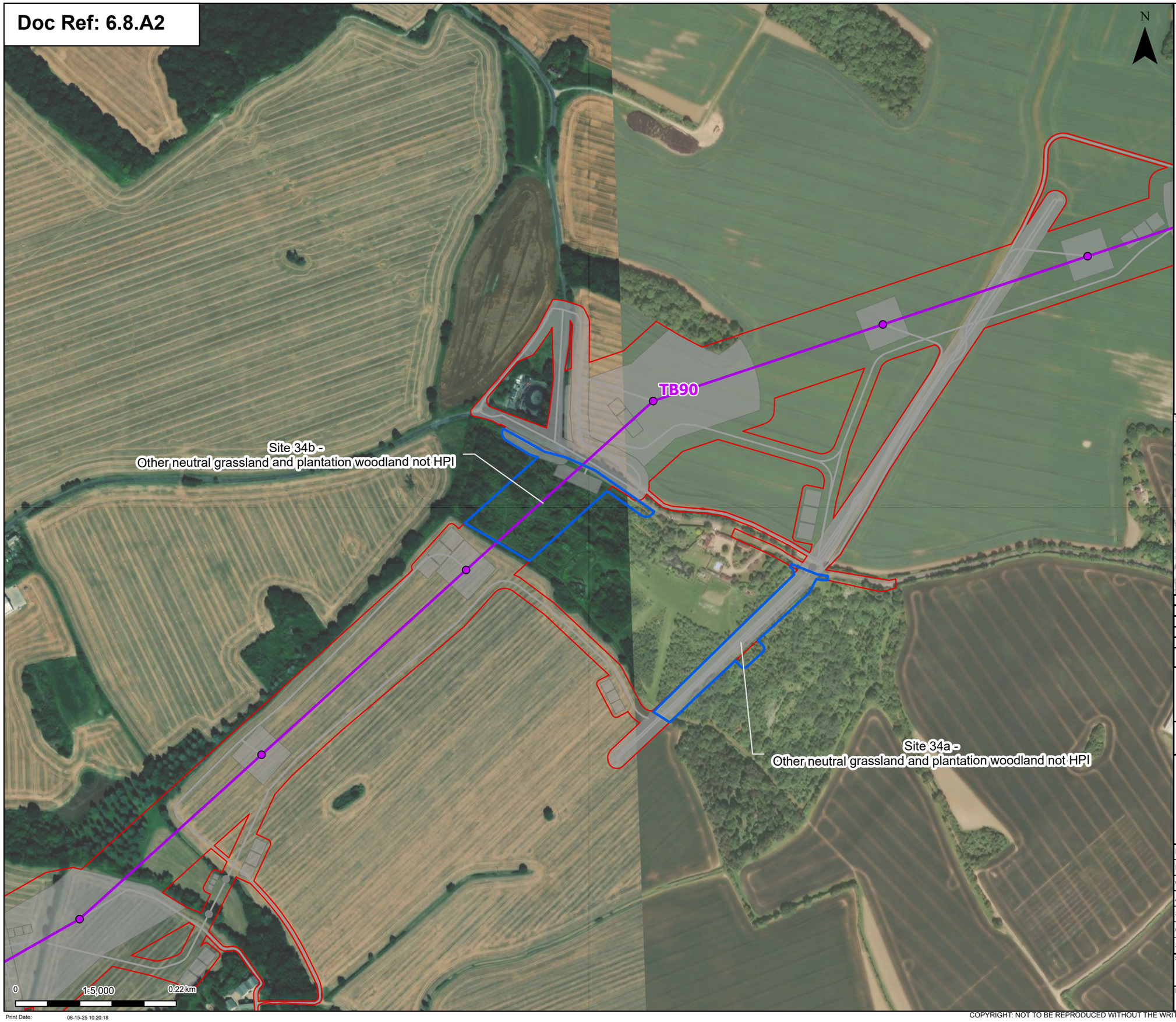
Doc Ref: 6.8.A2



Order limits

Proposed project design details

Proposed standard lattice pylon location

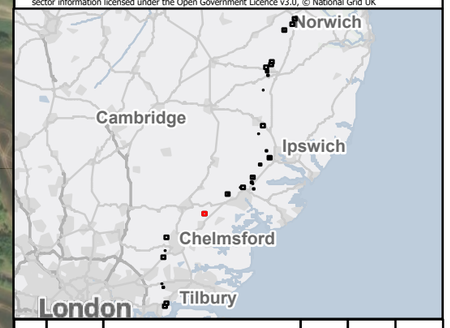
Proposed overhead line alignment

Other temporary and permanent construction and operational works

Discipline specific constraints

Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
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Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
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Approved	K. Burrows	Date	21 Aug 25
Scale:	1:5,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:

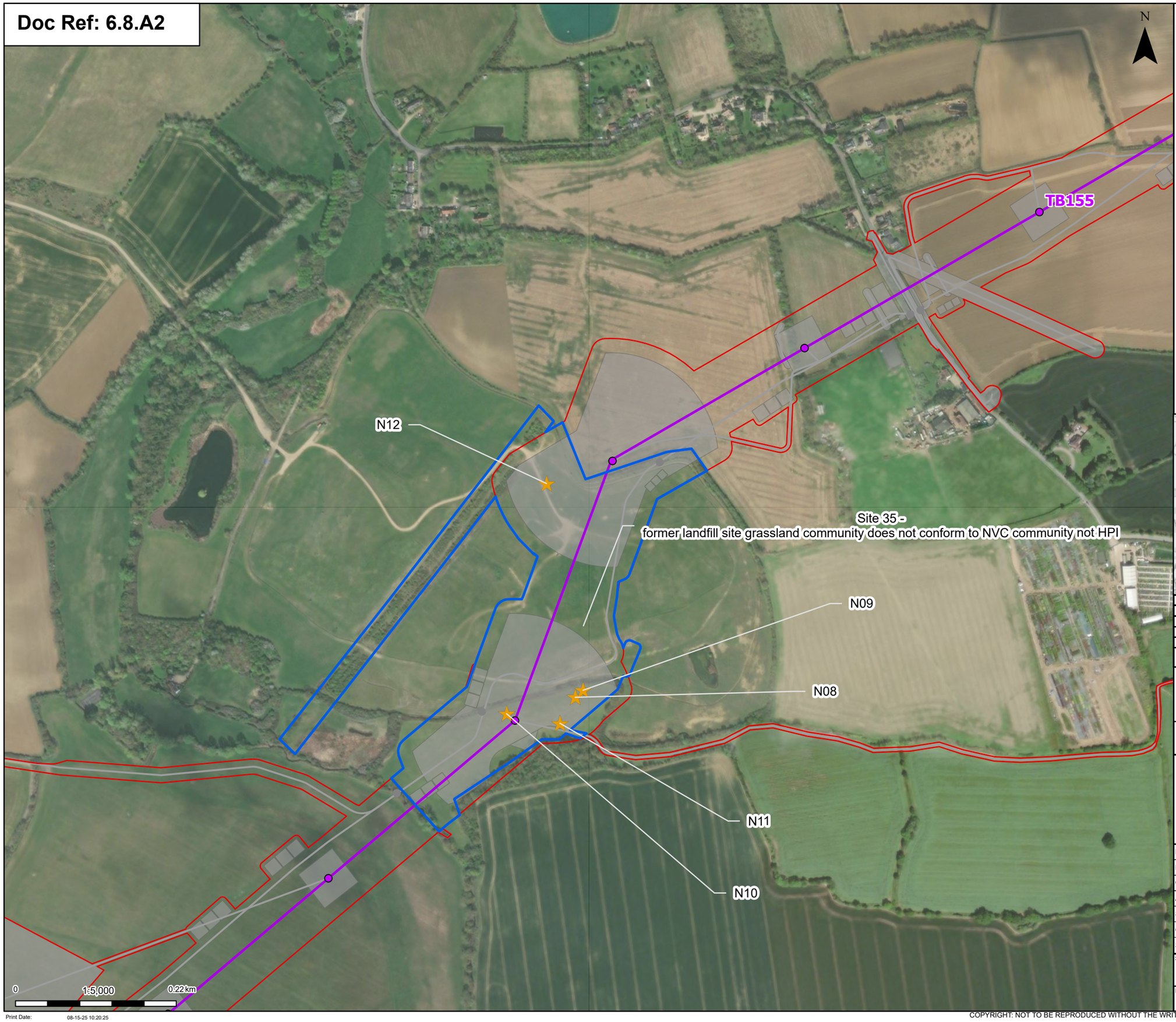
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

Print Date: 08-15-25 10:20:18

Doc Ref: 6.8.A2



Order limits

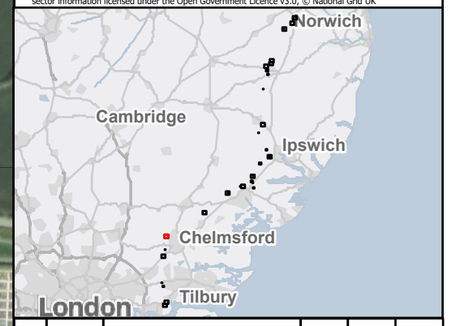
Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed environmental and mitigation area
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Notable Species
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
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Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Designed	A. Pinkney	Date	21 Aug 25
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
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Revision: A

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Print Date: 08-15-25 10:20:33

Order limits

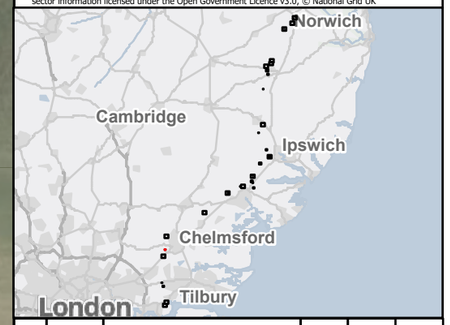
Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Woodland understorey and canopy /shrub layer/ Short woodland field layers quadrat
- Woodland canopy and shrub layer quadrat
- NVC survey area (36-01)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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PROJECT: Norwich to Tilbury

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Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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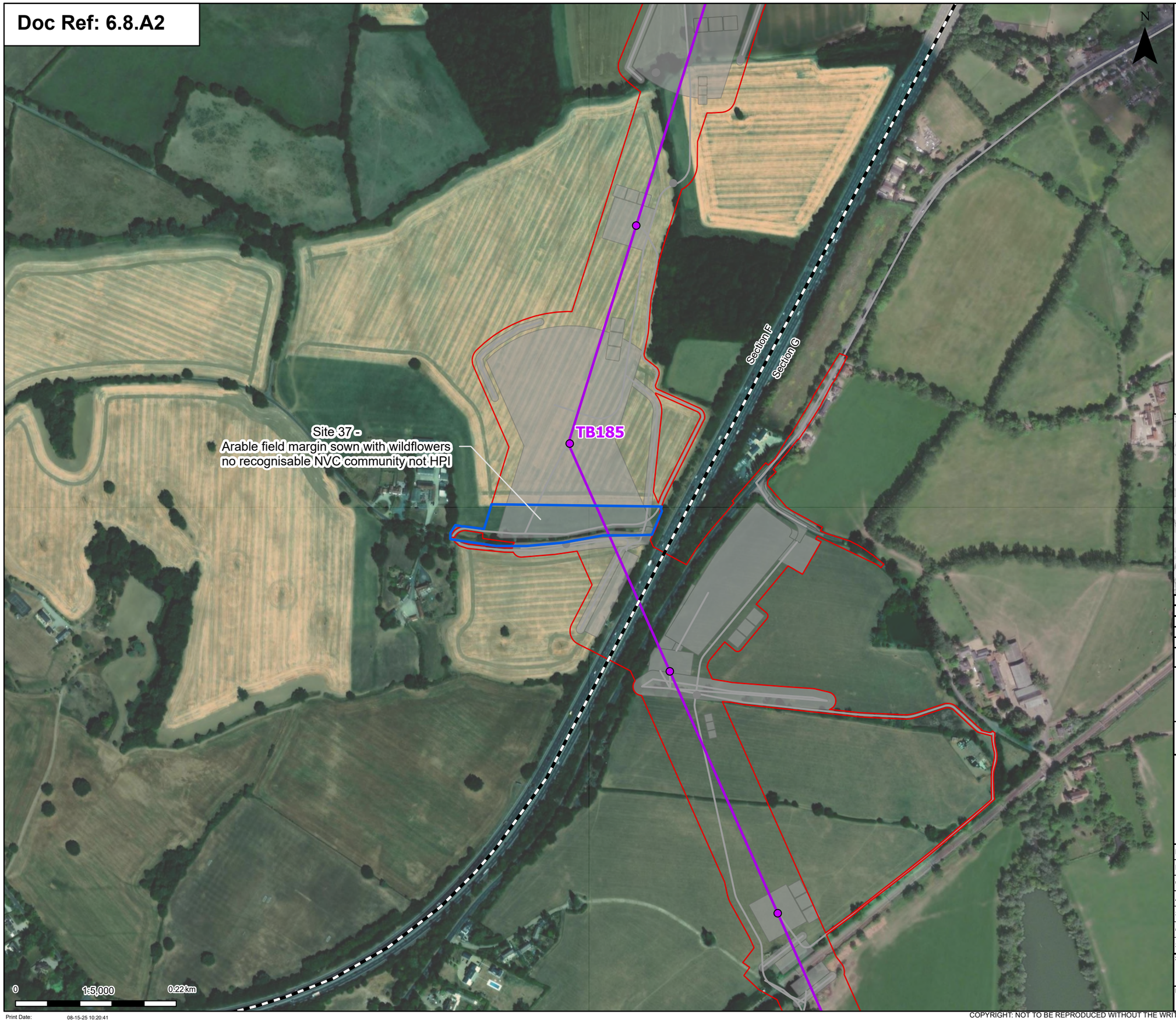


Order limits

Project section line

Proposed project design details

Proposed standard lattice pylon location

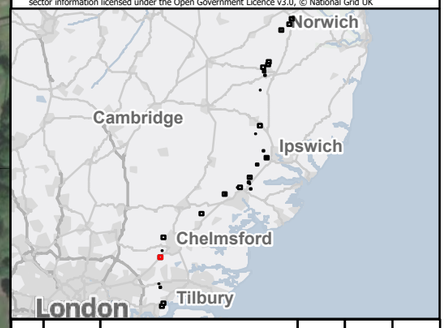
Proposed overhead line alignment

Other temporary and permanent construction and operational works

Discipline specific constraints

Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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PROJECT:
Norwich to Tilbury

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Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

Revision: A

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Doc Ref: 6.8.A2

Order limits

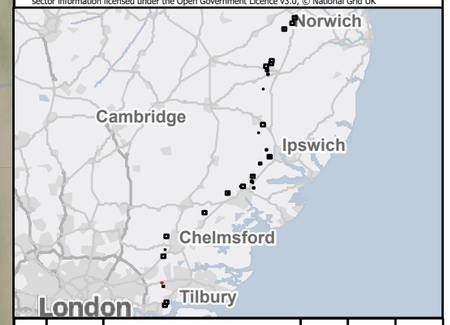
Proposed project design details

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Notable Species
- Short woodland field layers quadrat
- Woodland canopy and shrub layer quadrats
- Woodland understorey/shrub layer quadrats
- NVC survey area (39-01)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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nationalgrid

PROJECT: Norwich to Tilbury

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Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
Page 32 of 35

Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
Scale:	1:1,000	Datum:	AOD
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Suitability Code:	A2	Project Number:	10059280

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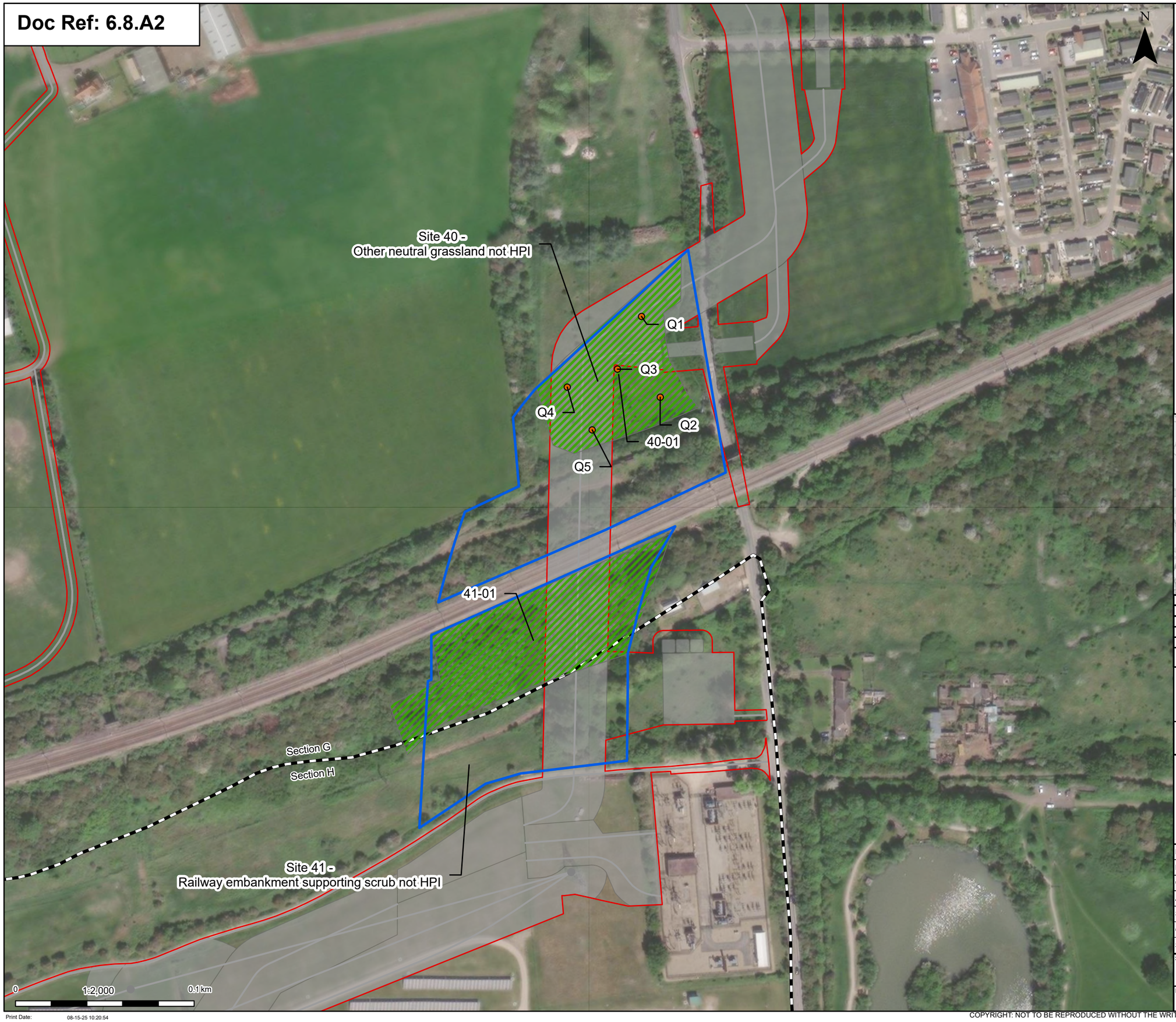


N

Order limits

Project section line

Proposed project design details

Other temporary and permanent construction and operational works

Discipline specific constraints

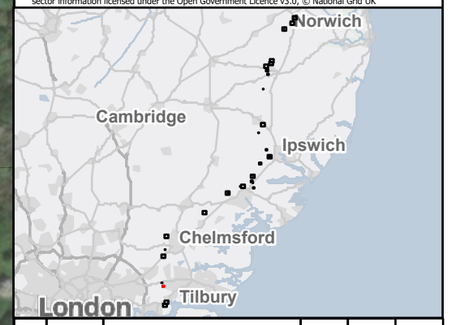
Herbaceous vegetation quadrat

NVC survey area (40-01)

NVC survey area (41-01)

Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
Page 33 of 35

Designed	A. Pinkney	Date	21 Aug 25
Drawn	K. Fischer	Date	21 Aug 25
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Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219

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TB255

TB260

42-03

42-04

42-05

42-01

N03

N04

Q1

Q2

Q3

Q4

Q5

FOR CONTINUATION SEE SHEET 35

Site 42 -
42-03 and 42-05 support lowland acid grassland HPI comprising U1b Festuca ovina-Agrostis capillaris-Rumex acetosella grassland, typical. 42-01, 42-02 and 42-05 support grassland an scrub that is part of open-ri[illegible] habitat [illegible]viously developed land HPI, 42-04 [illegible] grassland and not HPI.

0 0.11 0.22 km
1:5,000

Print Date: 08-15-25 10:21:02

N

Order limits

Proposed project design details

Proposed standard lattice pylon location

Proposed overhead line alignment

Other temporary and permanent construction and operational works

Discipline specific constraints

Notable Species

Dwarf-shrub heaths/Herbaceous vegetation quadrat

NVC survey area (42-01)

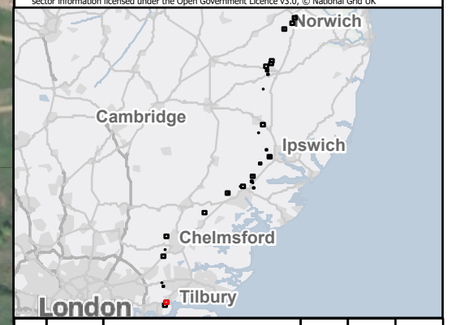
NVC survey area (42-03)

NVC survey area (42-04)

NVC survey area (42-05)

Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



Rev	Date	Description	Drawn	Check	Approv
A	Aug 2025	FOR DCO APPLICATION	KF	AF	KB

nationalgrid

PROJECT:
Norwich to Tilbury

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Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00219
Revision: A

Doc Ref: 6.8.A2

Site 42 -
42-03 and 42-05 support lowland acid grassland HPI comprising U1b Festuca ovina-Agrostis capillaris-Rumex acetosella grassland, typical. 42-01, 42-02 and 42-05 support grassland an scrub that is part of open-mosaic habitat on previously developed land HPI, 42-04 is other neutral grassland and not HPI.

FOR CONTINUATION SEE SHEET 34

TB260
42-03
42-04
Q5
Q4
Q3
Q2
42-02
Q1
ZB15RB
ZB15RC
YYJ125R

N

0 1:5,000 0.22 km

Print Date: 08-15-25 10:21:10

Order limits

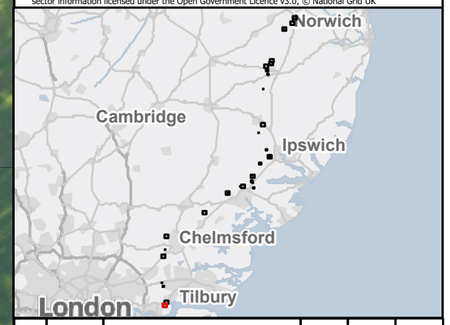
Proposed project design details

- Proposed full line tension gantry
- Proposed low duty gantry
- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed underground cable alignment
- Proposed Tilbury North Substation
- Proposed cable sealing end compound (CSEC)
- Proposed environmental and mitigation area
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Dwarf-shrub heaths/Herbaceous vegetation quadrat
- NVC survey area (42-02)
- NVC survey area (42-03)
- NVC survey area (42-04)
- Site boundary

Note: The proposed overhead line alignment and proposed underground cable alignment together comprise the alignment.For further details regarding the design, please refer to Figures 4.1 (document reference 6.4.F1) and 4.2 (document reference 6.4.F2).



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nationalgrid

PROJECT:
Norwich to Tilbury

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Figure A8.2.1 - Ecology and Biodiversity - National Vegetation Classification (NVC) Survey Map
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Revision: A

Annex B.
NVC Survey Metadata

nationalgrid

Annex B
NVC Survey Metadata

Table A8.2.4 – NVC Survey Metadata

Project Section	Site	Survey Date	Lead Surveyor	Air Temperature (°C)	Precipitation	Wind	Cloud Cover	Comments / Limitations
A	01	16/04/2024	AG	8	Light rain shower(s)	Moderate breeze	8 oktas - full cloud cover	Plantation woodland eastern section: 80% sycamore with occasional wild cherry and pedunculate oak. Very sparse elder understorey. Ground flora dominated by common nettle though rare bluebell and lesser celandine. Narrow strip to west dominated by hybrid black-poplar (*Populus x canadensis*). Some planted wild cherry and low incidence of mature pedunculate oak in western end of strip, with native understorey/sub-canopy shrubs. Bramble is most common understorey species with some areas dominated by common nettle. Some woodland species present (ground-ivy, wood avens). Not considered HPI so no quadrats taken.
A	02	16/04/2024	AG	8	Light rain shower(s)	Moderate breeze	8 oktas - full cloud cover	Plantation mixed woodland (70% mixed broadleaved species, 30% black pine *Pinus nigra*). Approximately 30 years old. The ground flora features dominant grasses and tall ruderal herbs (no recognisable

Project Section	Site	Survey Date	Lead Surveyor	Air Temperature (°C)	Precipitation	Wind	Cloud Cover	Comments / Limitations
								woodland NVC community). Not considered HPI so no quadrats taken.
A	03	16/04/2024	AG	8	Light rain shower(s)	Moderate breeze	8 oktas - full cloud cover	Site surveyed.
A	04	21/05/2024	MD	16	Dry	Light air	8 oktas - full cloud cover	Part solar farm, part horse paddocks. The solar farm had good quality other neutral grassland but was not considered lowland meadow quality, so no NVC undertaken. Could not access the areas to the north due to horses. Viewed from fence line and were too heavily grazed to be HPI.
A	05	17/04/2024	AG	9	Dry	Light breeze	6 oktas	Blackthorn scrub and mixed scrub. Not HPI so no quadrats taken.
A	06	20/05/2024	MD	18	Dry	Light air	1 okta	Area largely on former allotments and dominated by dense tussocky grasslands. Not HPI so no quadrats taken.
A	07	16/04/2024	AG	8	Light rain shower(s)	Fresh breeze	8 oktas - full cloud cover	Site surveyed.
A	08	17/04/2024	AG	9	Dry	Light breeze	6 oktas	Semi mature planted strip of trees. Not HPI so no quadrats taken.
A	09	21/05/2024	MD	16	Dry	Light air	8 oktas - full cloud cover	Modified grassland with planted young trees. Not HPI so no quadrats taken.

Project Section	Site	Survey Date	Lead Surveyor	Air Temperature (°C)	Precipitation	Wind	Cloud Cover	Comments / Limitations
A	10	20/08/2024	AG	21	Dry	Gentle breeze	6 oktas	Not subject to NVC survey due to access restrictions, survey from a distance it supported species-poor semi-improved grassland and not HPI, so not worthy of further survey.
A	11	22/05/2024	MD	15	Light consistent rain	Gentle breeze	8 oktas - full cloud cover	Bramble scrub, not HPI.
A, B	12	18/04/2024	AG	13	Dry	Light breeze	6 oktas	Grassland that was not surveyed was not worthy of further survey, species poor, and not HPI. Plantation woodland not surveyed, not HPI.
B	13	17/04/2024	AG	9	Dry	Light breeze	6 oktas	Site surveyed.
B	14	30/04/2024	AG	16	Dry	Light breeze	1 okta	Site surveyed.
B	15	22/05/2024	MD	15	Light consistent rain	Light air	8 oktas - full cloud cover	No habitats qualify as HPI, so no quadrats taken. Partially a fenced lagoon, disturbed ground and arable.
B	16	22/05/2024	MD	15	Dry	Gentle breeze	4 oktas - half sky covered	Grassland was not surveyed was not worthy of further survey, species poor, and not SPI. The River Gipping County Wildlife Site passes through this site it is a non-statutory designated site of County importance to nature conservation.

Project Section	Site	Survey Date	Lead Surveyor	Air Temperature (°C)	Precipitation	Wind	Cloud Cover	Comments / Limitations
B	17	17/04/2024	AG	10	Dry	Light breeze	3 oktas	Site surveyed.
B	18	30/04/2024	AG	15	Dry	Light breeze	1 okta	Site surveyed.
C	19	23/05/2024	MD	15	Dry	Gentle breeze	8 oktas - full cloud cover	Areas of other neutral grassland, swamp and wet woodland. NVC done on two areas of swamp and one woodland. Other areas not considered HPI no quadrats taken there. One parcel comprised swamp and other neutral grassland. Easternmost fields inaccessible due to horses however BNG survey classified as modified/other neutral and appeared as such from what we could see from the fence line.
C	20	23/05/2024	MD	18	Dry	Light air	3 oktas	Modified grassland with stream, grassland not HPI, so no quadrats taken.
C	21	01/05/2024	AG	18	Dry	Calm	0 oktas - sky completely clear	Woodland broad-leaved plantation no valuable ground flora or trees. Not HPI so no quadrats taken.
C	22	30/04/2024	AG	16	Dry	Light breeze	8 oktas - full cloud cover	Site surveyed.
C	23	11/06/2024	MD	13	Light rain shower(s)	Light breeze	4 oktas - half sky covered	Whole site had the potential to qualify as floodplain grazing marsh HPI due to presence of grazed grassland, pools and ditches. Majority considered not worthy of

Project Section	Site	Survey Date	Lead Surveyor	Air Temperature (°C)	Precipitation	Wind	Cloud Cover	Comments / Limitations
								quadrat survey. NVC undertaken of a small section (community 23-01), as a precaution to assesses against HPI criteria.
C	24	11/06/2024	MD	15	Dry	Gentle breeze	6 oktas	Quadrat survey not undertaken on health and safety grounds. NVC classification based on species identified from adjacent land parcel.
C	25	01/05/2024	AG	18	Dry	Calm	0 oktas - sky completely clear	Site surveyed.
C	26	01/05/2024	AG	14	Dry	Light air	0 oktas - sky completely clear	Site comprised four distinct sections with swamp, acid grassland, woodland and neutral grassland. NVC survey not undertaken of neutral grassland and plantation as not considered HPI.
C	27	01/05/2024	AG	18	Dry	Calm	0 oktas - sky completely clear	Site surveyed.
C	28	19/08/2024	AG	21	Dry	Moderate breeze	3 oktas	Site surveyed.
C	29	02/05/2024	AG	18	Dry	Light breeze	7 oktas	Lands access to most of the area (community 29-01) was not agreed, the remaining area (community 29-02) was blocked off by tall nettle, fences and litter tipping. Surveyed from adjacent land.

Project Section	Site	Survey Date	Lead Surveyor	Air Temperature (°C)	Precipitation	Wind	Cloud Cover	Comments / Limitations
D	30	11/06/2024	MD	14	Drizzle	Light air	7 oktas	Not considered HPI so not NVC undertaken. Site comprised other neutral grassland and lacked abundance/diversity of indicators required to qualify as lowland meadow HPI.
D	31	19/08/2024	AG	23	Dry	Gentle breeze	5 oktas	Site surveyed.
D	32	12/06/2024	MD	13	Dry	Calm	7 oktas	Site surveyed.
D	33	02/05/2024	AG	18	Dry	Light breeze	7 oktas	Not considered HPI so not NVC undertaken. Mature hybrid black-poplar plantation, adjacent to river. Likely floods regularly. Common nettle dominated ground flora. Scattered elder and pedunculate oak. Patch of open space on the western side, dominated by common nettle and bramble.
E	34a	02/05/2024	AG	20	Dry	Gentle breeze	7 oktas	Not HPI no quadrats sampled
E	34b	02/05/2024	AG	20	Dry	Light air	7 oktas	Not HPI no quadrats sampled
F	35	12/06/2024	MD	12	Dry	Gentle breeze	8 oktas - full cloud cover	Former landfill site lacks an established grassland sward unlikely to conform to NVC community, no quadrats sampled. Bee orchid and pyramidal orchid recorded within the site.

Project Section	Site	Survey Date	Lead Surveyor	Air Temperature (°C)	Precipitation	Wind	Cloud Cover	Comments / Limitations
F	36	20/08/2024	AG	21	Dry	Gentle breeze	6 oktas	Site surveyed.
F	37	14/05/2024	MD	13	Light consistent rain	Light breeze	8 oktas - full cloud cover	Set-aside margin of arable field. Likely seeded with wildflower mix. Species: oxeye daisy, common bird's-foot-trefoil, yarrow, red clover, ribwort plantain, common knapweed, cut-leaved crane's-bill, red fescue, red campion, broad-leaved dock. Does not conform to a recognisable NVC community no quadrats sampled.
G	38	Data deleted – located outside the Order Limits and not linked to habitat within Order Limits						
G	39	14/05/2024	MD	15	Drizzle	Light breeze	8 oktas - full cloud cover	Site surveyed.
G	40	20/08/2024	AG	23	Dry	Light breeze	3 oktas	Site surveyed.
H	41	20/08/2024	AG	23	Dry	Light breeze	3 oktas	Railway embankment, quadrats not sampled due to access constraints.
H	42	21/08/2024	AG	21	Dry	Moderate breeze	3 oktas	Site surveyed.
H	43	23/08/2024	AG	22	Dry	Fresh breeze	4 oktas - half sky covered	Other neutral grassland / semi-improved neutral grassland with high abundance of tall ruderal species and bare ground. Short cropped sward due to heavy horse grazing. More species diverse in western section. Not HPI so quadrats not taken.

Annex C.
NVC Communities – Habitat Description

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Annex C
NVC Communities – Habitat Description

Table A8.2.5 NVC communities – habitat description

Project Section	Community Reference	Community Type	Sub-community Type(s)	Anomalies	Is it an HPI?	Is it an Irreplaceable habitat?	Site and Vegetation Description	Biotic Impacts / Management Description
A	03-01	W8 Fraxinus excelsior - *Acer campestre* - *Mercurialis perennis* woodland	W8d *Hedera helix*	No dog's mercury	Lowland mixed deciduous woodland	No	No shrub/understorey layer.	None.
A	07-01	W8 Fraxinus excelsior - *Acer campestre* - *Mercurialis perennis* woodland	W8d *Hedera helix*	No dog's mercury	Lowland mixed deciduous woodland	No	Former railway cutting, 12 m slope down into flat bottomed area, early mature ash and pedunculate oak at canopy level. Hawthorn shrub layer. Bare ground dominant on slopes, nettle dominant in flat bottom.	None.
A	12-01	MG13 *Agrostis stolonifera* - *Alopecurus geniculatus* grassland	N/A.	Dominated by creeping bent, tussocks of soft-rush and tufted hair-grass. Marsh foxtail absent.	None	No	Dominated by creeping bent, scattered tufted hair-grass and soft-rush. Ruderals and dominant grasses at southern edge adjacent to river, fen encroaching on northern side, ditch in centre, bordered by rushes and reed canary-grass.	None.
A	12-02	S6 *Carex riparia* swamp	N/A.	N/A.	None	No	Dominant stand of greater pond-sedge extending from ditch into grassland. Common reed present at western end, becoming more species diverse at transition with grassland. Outside the Order Limits, description retained for contextual purposes only.	None.
A	12-03	MG13 *Agrostis stolonifera* - *Alopecurus geniculatus* grassland	N/A.	Dominated by creeping bent, tussocks of soft-rush and tufted hair-grass. Marsh foxtail absent.	None	No	Low lying area of grazed field features high incidence of creeping bent, as adjacent community subject to NVC survey but with higher incidence of dominant grasses.	Grazed.
A	12-04	S6 *Carex riparia* swamp	N/A.	N/A.	None	No	Heavily vegetated ditch dominated by greater pond-sedge, irregular mature goat willow. Same as adjacent S6 NVC area.	None.
B	12-05	W10 *Quercus robur* - *Pteridium aquilinum* - *Rubus fruticosus* woodland	W10d *Holcus lanatus*	Bracken absent, bramble only occasional.	Lowland mixed deciduous woodland	No	Canopy: dominated by pedunculate oak. Sparse understorey with guelder-rose, elder, hawthorn and gorse. Ground layer: honeysuckle, Yorkshire-fog and three-nerved sandwort. Outside the Order Limits, description retained for contextual purposes only.	None.

Project Section	Community Reference	Community Type	Sub-community Type(s)	Anomalies	Is it an HPI?	Is it an Irreplaceable habitat?	Site and Vegetation Description	Biotic Impacts / Management Description
B	12-06	MG13 *Agrostis stolonifera - Alopecurus geniculatus* grassland	N/A.	N/A.	None	No	Low-lying area of a field. High incidence of bare ground due to winter flooding. The sward was dominated by creeping bent, with common reed encroaching from a boundary ditch. Limitations: Quadrats not taken clearly MG13. Outside the Order Limits, description retained for contextual purposes only.	Flooding.
B	13-01	Possible MG4 *Alopecurus pratensis - Sanguisorba officinalis* grassland	N/A.	Not good fit for any NVC community. Great burnet and numerous other 'constant' species were not noted.	None	No	Damp grassland, c.10% scrub encroachment at boundaries (bramble and willow). Ruderal herbs (common nettle) also dominant at edge. Jointed rush is abundant through sward, as is meadow foxtail. Acidic influence evident in areas. Grassland is not a good fit with any NVC community isn't classic MG4.	Possible grazing, possible mowing, high water table, shading at edge from adjacent trees.
B	14-01	W8 *Fraxinus excelsior - Acer campestre - Mercurialis perennis* woodland	W8a *Primula vulgaris, Glechoma hederacea*	Oak is more prevalent than field maple.	Lowland mixed deciduous woodland	No	Small patch of woodland with mature oak and ash trees. Hawthorn and bramble most abundant understorey. Ground layer features false brome and garlic mustard.	Minor deer impact.
B	14-02	Possible MG4 *Alopecurus pratensis - Sanguisorba officinalis* grassland	N/A.	Not good fit for any NVC community. Great burnet and numerous other 'constant' species were not noted.	None	No	Grassland appeared to be subjected to annual mowing, sward varied, grasses dominate, diverse forb species present. Small patch of hard rush and minor bramble encroachment. Outside the Order Limits, description retained for contextual purposes only.	Possible mowing.
B	17-01	W8 *Fraxinus excelsior - Acer campestre - Mercurialis perennis* woodland	W8f *Allium ursinum*	Ash does not dominate the canopy. Only pockets of ramsons. Nettle and garlic mustard abundant.	Lowland mixed deciduous woodland	No	Slope into dry stream channel. Field maple most abundant canopy tree. Mature specimens but no veterans. Topography slopes into centre of woodland were dry ditch bed present (ditch floods during periods of high rainfall). Elder is the most common shrub species. Ancient woodland indicators present particularly on slopes. Nettle and garlic mustard abundant in low lying area.	Nutrient enrichment caused by runoff from adjacent farmland.
B	18-01	MG1 *Arrhenatherum elatius* grassland	MG1a *Festuca rubra*	Tall fescue is abundant throughout grassland.	None	No	Generally, species-poor, but areas more recently disturbed are more species-rich with some lowland meadow indicator species.	Some areas recently disturbed.
C	19-01	Transition between a damp grassland community and a mire/swamp community.	N/A.	It does not have sufficient abundance of grasses to fit into a grassland community. It has affinities to M27 *Filipendula ulmaria – Angelica sylvestris* mire but does not have the abundance of meadowsweet associated with that community.	None	No	Area of inundated land by river at bottom of grassland hill with cows. abundant oval sedge and hard rush. Other wetland species include water mint, wild angelica, fleabane and skullcap. Site as a whole lowland floodplain grazing marsh HPI.	Unknown but cows in adjacent wider field.

Project Section	Community Reference	Community Type	Sub-community Type(s)	Anomalies	Is it an HPI?	Is it an Irreplaceable habitat?	Site and Vegetation Description	Biotic Impacts / Management Description
C	19-02	Transition between S6 *Carex riparia* swamp and S7 *Carex acutiformis* swamp.	N/A.	N/A.	None	No	Small area of swamp habitat dominated by greater and lesser pond-sedges. Lacking diversity with other species including rough meadow-grass, meadow foxtail, oval sedge, water mint and common nettle.	Sheep grazing evident. Unknown if fen cut.
C	19-03	W6 *Alnus glutinosa - Urtica dioica* woodland	W6a typical	N/A.	Wet woodland	No	Narrow strip of wet woodland along river corridor. Canopy of predominantly alder with frequent crack-willow and rare ash. Sparse understorey of hawthorn, blackthorn and hazel and ground flora dominated by common nettle. More diverse at stream's edge with wild garlic and moschatel noted. Cattle and sheep grazed on either side of woodland. Very large former coppiced alders along stream bank.	No obvious management practices although former coppice evidence.
C	22-01	W10 *Quercus robur - Pteridium aquilinum - Rubus fruticosus* woodland	W10d *Holcus lanatus*	W10d *Holcus lanatus* is best fit but possible W10c *Hedera helix* due high incidence of false brome and garlic mustard.	Lowland mixed deciduous woodland	No	Hawthorn most abundant understorey, no bracken. Western end has more diverse canopy, pedunculate oak dominates centre and east. Raised bank in western half and sunken bank in the eastern half with 45-degree slopes.	Former railway line, mown track through part. Pheasant rearing.
C	23-01	S6 *Carex riparia* swamp	N/A.	N/A.	None	No	Edge of field along ditch dominated by sedges. Soils damp. Site as a whole lowland floodplain grazing marsh HPI.	Grazing.
C	24-01	S6 *Carex riparia* swamp	NA	NA	None	No	Detailed NVC survey not undertaken on health and safety grounds. Large area of swamp around drying lagoon. Large areas of sedge (*Carex* sp.) bed, some reed bed, stands of yellow iris, extensive water mint, gypsywort and purple-loosestrife. Drying areas are dominated by dead vegetation and litter and patches of hawthorn, blackthorn and bramble scrub, creating a mosaic habitat. Species list: Common reed LF Triffid bur-marigold LA Gypsywort F Marsh ragwort R Wild angelica R Redshank F Water pepper O Marsh woundwort R Water chickweed O Water dock R Purple-loosestrife LF Golden dock R Fleabane LF	N/A.

Project Section	Community Reference	Community Type	Sub-community Type(s)	Anomalies	Is it an HPI?	Is it an Irreplaceable habitat?	Site and Vegetation Description	Biotic Impacts / Management Description
							Added on 11 June 2024 Reed canary-grass F Greater pond-sedge D Water mint F Common reed LF Pink water-speedwell R	
C	25-01 25-02 25-03 25-04	Site is located outside the Order Limits and not linked to habitat within the Order Limits.						
C	26-01	S14 *Sparganium erectum* swamp	S14c *Mentha aquatica*	Bulrush is abundant.	None	No	Branched bur-reed dominated, transition to rush dominated area. Greater species richness at transition.	Affected by fluctuating water levels of adjacent lake.
C	26-02	U1 Festuca ovina - *Agrostis capillaris* - *Rumex acetosella* grassland	U1c *Erodium cicutarium*-*Teesdalia nudicaulis*	Uncertain on sub community, U1c is best fit but U1b typicum is possible.	Lowland dry acid grassland	No	Short grassland with abundant acid indicators. Minor bramble encroachment. West of track grassland gradually decreases in quality to the west, where dominant grasses and ruderal species are present. In furthered western section there are limited patches where acid character is retained.	Evidence of grazing.
C	26-03	W6 *Alnus glutinosa* - *Urtica dioica* woodland	W6a typical	Frequent willow at canopy.	Lowland mixed deciduous woodland	No	Mature alder sub-dominating canopy, though frequent hybrid crack-willow. Understorey features elder and willow species but is relatively sparse. Ground flora features abundant common nettle and cleavers. Yorkshire-fog and rough meadow-grass present as well as garlic mustard, wavy bittercress, ground-ivy, three-nerved sandwort, foxglove, green alkanet, opposite-leaved golden-saxifrage. Bracken present in low incidence at eastern end. Himalayan balsam present. Narrow stream flows west-east through centre of woodland. Western end features planted willow and poplar species. Southern end features planted sycamore, pedunculate oak, silver birch and hazel alongside track. Small mostly dry pond present in this section too.	N/A.
C	26-04	N/A. Does not fit any NVC community.	N/A.	N/A.	None	No	Not HPI. Modified grassland. Abundant: false oat-grass, cock's-foot, Yorkshire-fog, creeping bent, perennial rye-grass, meadow foxtail, common bent, soft-brome. Common nettle and thistles are abundant throughout and dominant in patches. Other forb species include creeping buttercup, germander speedwell, common ragwort, daffodil (*Narcissus pseudonarcissus*), cleavers, (*Trifolium repens*) and dandelion (*Taraxacum officinale* agg.).	Fly tipped waste present.

Project Section	Community Reference	Community Type	Sub-community Type(s)	Anomalies	Is it an HPI?	Is it an Irreplaceable habitat?	Site and Vegetation Description	Biotic Impacts / Management Description
C	26-05	U1 Festuca ovina - *Agrostis capillaris* - *Rumex acetosella* grassland	U1c *Erodium cicutarium*-*Teesdalia nudicaulis*	Uncertain on sub community, U1c is best fit but U1b typicum is possible.	Lowland dry acid grassland	No	Small section (20 m x 5 m) at south-eastern section of 26-04, at top of slope, which features acidic grassland community. Similar species composition as 26-02.	Fly tipped waste present.
C	27-01	U1 Festuca ovina - *Agrostis capillaris* - *Rumex acetosella* grassland	U1b typical	Typicum best fit but high incidence of musk thistle.	Lowland dry acid grassland	No	Lower slope at southern end features dominant grasses and a patch of rushes. Flat top at northern end of site features acidic indicators, but also a high incidence of thistles (*Cirsium* spp and musk) and common nettle. Rat's-tail fescue, sheep's fescue, creeping bent, soft-brome and meadow fescue. Some patches of perennial rye-grass and rough meadow-grass at northern boundary.	Minor rabbit presence. High incidence of nettle and thistle.
C	28-01	MG1 *Arrhenatherum elatius* grassland	MG1c *Filipendula ulmaria*	Does not really fit any NVC community. MG1c is best fit, possibly OV23c (*Lolium perenne-Dactylis glomerata* community, *Plantago major-Trifolium repens* sub-community).	None	No	Tall rank grassland with high incidence of ruderal species, limited areas with shorter sward due to ground disturbance. Features higher incidence of ephemerals. Low incidence of scattered scrub. Field has appearance of fallow former arable field.	Unmanaged.
C	29-01	N/A. Does not fit any NVC community.	N/A.	N/A.	None	No	Plantation woodland. Line of planted non-native hybrid poplar trees with dense common nettle and bramble understorey on east side. Scattered mature pedunculate oaks and patches of remnant woodland ground flora (bluebell, lord's-and-ladies *Arum maculatum*, ground-ivy, primrose *Primula vulgaris*, bracken). Himalayan balsam present scattered throughout. Sparse understorey featuring wild cherry, elder and hawthorn.	Plantation.
C	29-02	W6 *Alnus glutinosa* - *Urtica dioica* woodland	W6a typical	N/A.	None	No	Woodland present at edge of fishing lakes to the south. Alder is the dominant canopy tree though low incidence of willow, silver birch and oak. Willow and elder understorey is sparse. Ground/herb layer features abundant common nettle with some patches featuring remote sedge and rough meadow-grass, and some bramble patches. Some parts appear to flood in winter. Access to this was limited due to dense common nettle and bramble and no access to adjacent land parcel owned by Anglian water (fishery), so quadrats not taken. Outside the Order Limits, description retained for contextual purposes only.	None.
D	31-01	W6 *Alnus glutinosa* - *Urtica dioica* woodland	W6d *Sambucus nigra*	N/A.	Lowland mixed deciduous woodland	No	Mature semi-natural woodland dominated at canopy level by alder, some ash and willow on the eastern side. Strip at southern end planted with other tree species. Understorey dominated by elder, but some open areas featuring dense bramble. Understorey features abundant common nettle, locally abundant bracken. Exposed soil is abundant. Ancient woodland indicators are present, particularly bluebell (abundant).	Low to moderate browsing by deer.

Project Section	Community Reference	Community Type	Sub-community Type(s)	Anomalies	Is it an HPI?	Is it an Irreplaceable habitat?	Site and Vegetation Description	Biotic Impacts / Management Description
D	32-01	MG5 *Cynosurus cristatus - Centaurea nigra* grassland	MG5b *Galium verum*	Not a close fit with any sub community however considered closest to MG5b due to the presence of lady's bedstraw, salad burnet, and ribwort plantain.	Lowland meadow	No	Considered to qualify as lowland meadow MG5 as meets the UKHab v2 criteria including more than 30% of herbs, less than 10% cover of rye-grass and white clover, and at least four indicators present. Considered poor example of habitat type due to few indicator species, likely to have been sown. Outside the Order Limits, description retained for contextual purposes only.	Likely cut for hay
F	36-01	W10 *Quercus robur - Pteridium aquilinum - Rubus fruticosus* woodland	W10a typical	Bracken only present in eastern section. Hornbeam more abundant than classic community.	Lowland mixed deciduous woodland	No	Narrow strip of mature woodland between arable fields. Oak and ash dominated at western end. Hornbeam and birch also present to the east. Understorey hazel and hornbeam with lower bramble layer. Ground layer relatively sparse.	Low levels of deer browsing.
G	39-01	W10 *Quercus robur - Pteridium aquilinum - Rubus fruticosus* woodland	W10a typical	N/A.	Lowland mixed deciduous woodland	No	Poor example of W10 woodland. Canopy dominated by oak with occasional ash. Understorey includes hawthorn, blackthorn, field maple and rarely spindle. Ground flora not diverse with frequent rough meadow-grass, occasional greater stitchwort. Bramble and honeysuckle also noted along with Essex rare Adder's-tongue. Low number of wild service-trees. Most trees semi mature with larger trees noted along the boundary.	Appears unmanaged.
G	40-01	MG1 *Arrhenatherum elatius* grassland	MG1a *Festuca rubra*	Diverse grasses but dominated by tall dominant species. Ruderal and climbing herbs frequent.	None	No	Tall dominant grass-dominated, tall ruderal and climbing herbs frequent, otherwise herb poor. C. 10% scattered scrub and surrounding dense scrub encroaching into grassland.	Unmanaged, low-level grazing and trampling by wild animals.
H	41-01	W22 *Prunus spinosa - Rubus fruticosus* scrub	W22a *Hedera helix-Silene dioica*	Mature standard oaks providing taller canopy.	None	No	Parcel only partially viewed, so detailed NVC not undertaken. Woodland predominantly comprises tall (c. 7 metres) mature scrub species (abundant blackthorn and occasional hawthorn). Mature standard pedunculate oak, rare wild cherry and occasional apple at eastern end. Southern edge features denser understorey but sparse where more shaded. Common ivy and common nettle abundant at ground layer.	Unmanaged.
H	42-01	Transition between open vegetation and grassland	N/A	Does not closely resemble any NVC community	None	No	Developing grassland / open community on made ground with patches of bare ground. Areas where grass is abundant and others where shrubs dominate. Goat's-rue frequent throughout and surrounded by scrub. Stress-tolerant annuals frequent.	Quarry.
H	42-02	Transition between open vegetation and grassland	N/A	Does not closely resemble any NVC community	None	No	Quarry to the east of Buckingham Hill Road with areas of open mosaic habitat with bare ground and early successional communities. Frequent common mouse-ear, Yorkshire-fog and mosses. Abundant rat's-tail fescue.	Quarry.

Project Section	Community Reference	Community Type	Sub-community Type(s)	Anomalies	Is it an HPI?	Is it an Irreplaceable habitat?	Site and Vegetation Description	Biotic Impacts / Management Description
H	42-03	U1 *Festuca ovina - Agrostis capillaris - Rumex acetosella* grassland	U1d *Anthoxanthum odoratum-Lotus corniculatus*	Other grass species abundant.	Lowland dry acid grassland	No	Area of arid acid grassland. Very dry during survey, which limited full species identification. Site appears to be on made ground. Large amount of scattered scrub, horse grazed. Habitat extends in narrow strip to the south along the western site boundary. This section is more diverse but is less typical of a community due to presence of more ruderal species.	Horse grazed.
H	42-04	MG1 *Arrhenatherum elatius* grassland	MG1b *Urtica dioica*	Dominated by goat's-rue but false oat-grass abundant beneath.	None	No	Habitat adjacent to acid grassland and mixed scrub, dominated by goat's-rue and other tall ruderal species. Some open areas (trampled by horses) and informal track where goat's-rue does not dominate, and grasses are present. May have previously been acid grassland but has become dominated by competitive species. Scrub encroachment c. 10%. Quadrats not sampled as not HPI.	Horse grazed and trampled in limited areas.
H	42-05	U1 *Festuca ovina - Agrostis capillaris - Rumex acetosella* grassland	U1b typical	It is succeeding towards MG1 in parts. Yorkshire-fog and false oat-grass locally abundant.	Lowland dry acid grassland	No	Habitat short with acidic species, particularly in southern section. Large parts are succeeding to tall competitive grassland. Part mown in northern section.	Part mown, relatively high rabbit grazing.

Annex D.
NVC Communities – Physical Properties

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Annex D
NVC Communities – Physical Properties

Table A8.2.6 NVC communities – physical properties

Comm. Ref.	Slope (%)	Aspect	Is the site located on made ground?	Is the site located on a floodplain?	Ground layer mean height (mm)	Ground layer % cover	Herb or sub-shrub layer mean height (cm)	Herb or sub-shrub layer % cover	Shrub layer or woodland understorey mean height (m)	Shrub layer or woodland understorey % cover	Woodland canopy mean height (m)	Woodland canopy % cover	Bare rock % cover	Exposed soil % cover	Leaf litter and other vegetation debris % cover	Scrub encroachment %	Bracken encroachment %
03-01	0	N/A	No	No	100	70	400	40	2	75	15	70	0	10	20	0	0
07-01	45	NE & SW	No	No	100	20	30	20	5	90	16	60	0	40	40	0	0
12-01	0	N/A	No	Yes	100	90	0	0	0	0	0	0	0	10	0	0	0
12-02	0	N/A	No	Yes	0	0	60	95	0	0	0	0	0	0	5	5	0
12-03	0	N/A	No	Yes	100	98	0	0	0	0	0	0	0	2	0	0	0
12-04	0	N/A	No	Yes	0	0	60	85	0	0	0	0	0	0	0	15	0
12-05	0	N/A	No	No	150	30	0	0	5	10	18	100	0	0	70	0	0
12-06	0	N/A	No	Yes	100	30	0	0	0	0	0	0	0	0	70	0	0
13-01	0	N/A	No	No	150	90	0	0	0	0	0	0	0	5	0	10	0
14-01	0	N/A	No	No	200	60	0	0	4	60	15	70	0	0	30	0	0
14-02	0	N/A	No	No	300	90	0	0	0	0	0	0	0	0	0	10	0
17-01	30	S	No	No	100	65	30	50	6	80	13	40	0	10	5	0	0
18-01	5	S	No	No	300	95	0	0	0	0	0	0	0	5	0	0	0
19-01	1	E	No	Yes	300	90	0	0	0	0	0	0	0	10	0	0	0
19-02	0	N/A	No	Yes	0	0	100	100	0	0	0	0	0	0	0	0	0
19-03	0	N/A	No	Yes	0	0	1000	95	8	3	12	80	0	4	1	0	0
22-01	45	SE and NW	Yes	No	200	70	0	0	4	40	16	80	0	0	30	0	0
23-01	0	N/A	No	Yes	500	90	0	0	0	0	0	0	0	10	0	0	0
24-01	0	N/A	No	Yes	0	0	100	85	0	0	0	0	0	0	0	15	0

Comm. Ref.	Slope (%)	Aspect	Is the site located on made ground?	Is the site located on a floodplain?	Ground layer mean height (mm)	Ground layer % cover	Herb or sub-shrub layer mean height (cm)	Herb or sub-shrub layer % cover	Shrub layer or woodland understorey mean height (m)	Shrub layer or woodland understorey % cover	Woodland canopy mean height (m)	Woodland canopy % cover	Bare rock % cover	Exposed soil % cover	Leaf litter and other vegetation debris % cover	Scrub encroachment %	Bracken encroachment %
25-01 25-02 25-03 25-04									Site is located outside the Order Limits and not linked to habitat within the Order Limits.								
26-01	0	N/A	No	Yes	0	0	120	95	0	0	0	0	0	0	60	5	0
26-02	10	S	No	No	30	95	0	0	0	0	0	0	0	0	0	5	0
26-03	10	S	No	No	100	80	100	90	4	20	20	90	0	0	0	0	0
26-04	20	N	No	No	250	100	0	0	0	0	0	0	0	0	0	0	0
26-05	20	N	No	No	150	85	0	0	0	0	0	0	0	0	0	0	0
27-01	20	S	No	No	200	98	0	0	0	0	0	0	0	2	0	0	0
28-01	5	N	No	No	500	98	0	0	0	0	0	0	0	2	0	0	0
29-01	3	SW	No	No	0	0	100	80	0	0	20	100	0	0	10	0	0
29-02	0	N/A	No	No	0	0	80	95	5	20	15	100	0	0	20	0	0
31-01	0	N/A	No	No	200	50	0	0	4	80	18	95	0	60	40	0	0
32-01	1	S	No	No	400	100	0	0	0	0	0	0	0	0	0	0	0
36-01	0	N/A	No	No	1000	30	0	0	5	80	20	95	0	30	60	0	0
39-01	0	N/A	No	No	300	90	0	0	350	30	10	100	0	0	10	0	0
40-01	2	S	No	No	1000	100	0	0	0	0	0	0	0	0	0	10	0
41-01	30	S	No	No	500	50	0	0	7	100	16	20	0	30	70	0	0
42-01	30	SW	Yes	No	50	95	0	0	0	0	0	0	0	5	0	5	0
42-02	30	SW	Yes	No	50	70	100	0	0	0	0	0	0	30	0	10	0
42-03	30	NW	Yes	No	50	95	0	0	0	0	0	0	0	5	0	10	0
42-04	30	SE	Yes	No	1000	98	0	0	0	0	0	0	0	1	0	10	0
42-05	0	N/A	Yes	No	300	95	0	0	0	0	0	0	0	5	0	5	0

Annex E.
NVC Communities – Floristic Tables

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Annex E
NVC Communities – Floristic Tables

Domin scale categories:

- Cover of 91-100%: Domin 10
- Cover of 76-90%: Domin 9
- Cover of 51-75%: Domin 8
- Cover of 34-50%: Domin 7
- Cover of 26-33%: Domin 6
- Cover of 11-25%: Domin 5
- Cover of 4-10%: Domin 4
- Cover of <4% with many individuals: Domin 3
- Cover of <4% with several individuals: Domin 2
- Cover of <4% with few individuals: Domin 1

Frequency categories:

- I: species present in 1-20% of samples (scarce);
- II: species present in 21-40% of samples (occasional);
- III: species present in 41-60% of samples (frequent);
- IV: species present in 61-80% of samples (constant); and
- V: species present in 81-100% of samples (constant)

Table A8.2.7 Quadrat data for community 03-01 – woodland canopy and shrub layer (whole section of woodland surveyed due to small size)

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 1
Fraxinus excelsior	Ash	7	Abundant	7
Quercus robur	Pedunculate oak	5	Occasional	5
Ulmus sp.	Elm	4	Frequent	4
Acer campestre	Field maple	4	Frequent	4
Salix caprea	Goat willow	2	Occasional	2
Corylus avellana	Hazel	1	Frequent	1
Carpinus betulus	Hornbeam	1	Rare	1

Table A8.2.8 Quadrat data for community 03-01 – woodland understorey / shrub layer (10 x 10 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6
Crataegus monogyna	Hawthorn	V	2-4	Abundant	4	3	4	4	2
Prunus spinosa	Blackthorn	IV	4-8	Abundant	Absent	8	5	4	5
Rubus fruticosus agg.	Bramble	IV	4-5	Occasional	4	4	5	4	5
Acer campestre	Field maple	III	4	Frequent	4	Absent	4	Absent	4

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6
Corylus avellana	Hazel	III	4-5	Frequent	4	Absent	4	Absent	5
Rosa arvensis	Field-rose	III	3-4	Frequent	3	3	Absent	4	Absent
Ulmus sp.	Elm	III	1-5	Frequent	Absent	1	4	Absent	Absent
Acer pseudoplatanus	Sycamore	II	1-2	Occasional	Absent	Absent	2	1	Absent
Sambucus nigra	Elder	II	1-2	Occasional	Absent	Absent	1	Absent	2
Ulmus procera	English elm	I	5	Occasional	Absent	Absent	Absent	5	Absent
Ilex aquifolium	Holly	I	1	Rare	Absent	Absent	Absent	1	Absent
Malus sylvestris	Crab apple	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.9 Quadrat data for community 03-01 – woodland field layer (4 x 4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Hedera helix	Common ivy	V	8-9	Dominant	9	8	8	8	8
Brachypodium sylvaticum	False brome	V	1-4	Frequent	1	2	2	4	2
Galium aparine	Cleavers	V	1-4	Frequent	1	2	2	2	4
Geum urbanum	Wood avens	V	1-4	Frequent	4	2	2	1	4

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Arum maculatum	Lord's-and-Ladies	III	3	Frequent	3	3	Absent	Absent	Absent
Lonicera periclymenum	Honeysuckle	III	1	Occasional	1	Absent	1	Absent	Absent
Glechoma hederacea	Ground-ivy	II	3	Frequent	Absent	3	Absent	Absent	3
Anthriscus sylvestris	Cow parsley	II	2-3	Occasional	Absent	Absent	Absent	2	3
Ficaria verna	Lesser celandine	II	3-4	Occasional	Absent	Absent	Absent	3	4
Silene dioica	Red campion	I	3	Occasional	Absent	Absent	Absent	3	Absent
Veronica hederifolia	Ivy-leaved speedwell	I	2	Occasional	Absent	2	Absent	Absent	Absent
Viola riviniana	Common dog-violet	I	2	Occasional	2	Absent	Absent	Absent	Absent
Stachys sylvatica	Hedge woundwort	I	2	Occasional	Absent	2	Absent	Absent	Absent
Alliaria petiolata	Garlic mustard	I	1	Occasional	Absent	Absent	Absent	Absent	1
Rumex obtusifolius	Broad-leaved dock	I	1	Occasional	Absent	Absent	Absent	Absent	1
Sanicula europaea	Sanicle	I	1	Occasional	1	Absent	Absent	Absent	Absent
Tamus communis	Black bryony	I	1	Occasional	Absent	Absent	Absent	Absent	1
Conium maculatum	Hemlock	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Dactylis glomerata	Cock's-foot	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Dryopteris filix-mas	Male-fern	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Epilobium hirsutum	Great willowherb	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Geranium robertianum	Herb-Robert	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Heracleum sphondylium	Hogweed	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Holcus lanatus	Yorkshire-fog	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Hyacinthoides non-scripta	Bluebell	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Moehringia trinervia	Three-nerved sandwort	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Plantago major	Greater plantain	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Taraxacum officinale agg.	Dandelion	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Veronica beccabunga	Brooklime	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.10 – Quadrat data for community 07-01 – woodland canopy and shrub layer (whole section of woodland surveyed due to small size)

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 1
Fraxinus excelsior	Ash	7	Frequent	7
Quercus robur	Pedunculate oak	5	Occasional	5
Acer campestre	Field maple	4	Occasional	4

Table A8.2.11 – Quadrat data for community 07-01 – woodland understorey / shrub layer (10x10 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6
Crataegus monogyna	Hawthorn	V	7-9	Dominant	7	9	8	8	9
Hedera helix	Common ivy	II	3-4	Frequent	Absent	4	Absent	3	Absent
Acer campestre	Field maple	II	4	Occasional	Absent	Absent	4	4	Absent
Prunus spinosa	Blackthorn	II	4	Occasional	Absent	Absent	4	4	Absent
Rubus fruticosus agg.	Bramble	II	1	Occasional	Absent	1	Absent	1	Absent
Sambucus nigra	Elder	I	4	Rare	Absent	Absent	Absent	Absent	4
Rosa canina	Dog-rose	I	2	Rare	Absent	2	Absent	Absent	Absent
Prunus domestica	Wild plum	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Ulmus procera	English elm	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.1212 – Quadrat data for community 07-01 – woodland field layer (4x4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Hedera helix	Common ivy	IV	2-6	Abundant	Absent	2	5	5	6
Brachypodium sylvaticum	False brome	IV	1-2	Frequent	2	1	2	Absent	2
Urtica dioica	Common nettle	II	2-4	Frequent	Absent	Absent	Absent	2	4
Veronica chamaedrys	Germander speedwell	II	3	Frequent	3	3	Absent	Absent	Absent
Arum maculatum	Lord's-and-Ladies	II	1-2	Occasional	1	Absent	Absent	Absent	2
Galium aparine	Cleavers	II	2-4	Occasional	Absent	Absent	Absent	2	4
Primula vulgaris	Primrose	II	1	Occasional	Absent	1	Absent	1	Absent
Glechoma hederacea	Ground-ivy	I	2	Occasional	Absent	Absent	Absent	2	Absent
Holcus lanatus	Yorkshire-fog	I	2	Occasional	Absent	2	Absent	Absent	Absent
Rosa arvensis	Field-rose	I	1	Occasional	Absent	1	Absent	Absent	Absent
Cirsium vulgare	Spear thistle	I	1	Rare	1	Absent	Absent	Absent	Absent
Cornus sanguinea	Dogwood	I	1	Rare	Absent	Absent	Absent	1	Absent
Tamus communis	Black bryony	I	1	Rare	Absent	Absent	1	Absent	Absent
Alliaria petiolata	Garlic mustard	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Veronica hederifolia	Ivy-leaved speedwell	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Geum urbanum	Wood avens	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.13 – Quadrat data for community 12-01 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Agrostis stolonifera	Creeping bent	V	8-9	Dominant	9	9	9	9	8
Ranunculus repens	Creeping buttercup	III	2-3	Occasional	Absent	Absent	3	2	3
Carex nigra	Common sedge	I	4	Occasional	4	Absent	Absent	Absent	Absent
Deschampsia cespitosa	Tufted hair-grass	I	4	Occasional	Absent	Absent	Absent	Absent	4
Juncus effusus	Soft-rush	I	2	Occasional	Absent	Absent	Absent	Absent	2
Rumex crispus	Curled dock	I	1	Occasional	Absent	1	Absent	Absent	Absent
Thalictrum flavum	Common meadow-rue	I	1	Occasional	Absent	Absent	Absent	Absent	1
Cirsium arvense	Creeping thistle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Equisetum fluviatile	Water horsetail	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Ficaria verna	Lesser celandine	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Galeopsis tetrahit	Common hemp-nettle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Galium palustre	Marsh-bedstraw	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Glyceria fluitans	Floating sweet-grass	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Phalaris arundinacea	Reed canary-grass	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Taraxacum officinale agg.	Dandelion	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Urtica dioica	Common nettle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Table A8.2.14 – Quadrat data for community 12-02 – tall herbaceous vegetation (4 x 4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6
Carex riparia	Greater pond sedge	V	9-10	Dominant	9	9	10	10	10
Galium palustre	Marsh-bedstraw	III	2-3	Occasional	3	2	2	Absent	Absent
Urtica dioica	Common nettle	III	2-4	Occasional	4	2	3	Absent	Absent
Agrostis stolonifera	Creeping bent	I	2	Occasional	Absent	Absent	Absent	Absent	2
Deschampsia cespitosa	Tufted hair-grass	I	4	Occasional	4	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6
Juncus effusus	Soft-rush	I	4	Occasional	Absent	4	Absent	Absent	Absent
Phragmites australis	Common reed	I	4	Occasional	4	Absent	Absent	Absent	Absent
Thalictrum flavum	Common meadow-rue	I	1	Occasional	Absent	1	Absent	Absent	Absent
Cardamine pratensis	Cuckooflower	I	1	Rare	1	Absent	Absent	Absent	Absent
Cirsium arvense	Creeping thistle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Equisetum fluviatile	Water horsetail	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Table A8.2.15 – Quadrat data for community 12-05 – woodland canopy and shrub layer (whole section of woodland surveyed due to small size)

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 1
Quercus robur	Pedunculate oak	10	Dominant	10
Betula pendula	Silver birch	1	Rare	1

Table A8.2.16 – Quadrat data for community 12-05 – woodland understorey / shrub layer (whole section of woodland surveyed due to small size)

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 2
Lonicera periclymenum	Honeysuckle	4	Frequent	4
Crataegus monogyna	Hawthorn	4	Occasional	4
Salix fragilis	Crack-willow	4	Occasional	4
Sambucus nigra	Elder	4	Occasional	4
Hedera helix	Common ivy	3	Occasional	3
Rubus fruticosus agg.	Bramble	2	Occasional	2
Viburnum opulus	Guelder-rose	2	Occasional	2
Ilex aquifolium	Holly	1	Rare	1
Dryopteris dilatata	Broad buckler-fern	N/A	Rare	Absent
Dryopteris filix-mas	Male-fern	N/A	Occasional	Absent
Ulex europaeus	Gorse	N/A	Occasional	Absent

Table A8.2.17 – Quadrat data for community 12-05 – tall herbaceous vegetation (4 x 4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6	Quadrat 7
Holcus lanatus	Yorkshire-fog	V	2-6	Frequent	5	2	5	6	4
Lonicera periclymenum	Honeysuckle	IV	1-4	Frequent	2	1	4	Absent	4
Acer pseudoplatanus	Sycamore	III	2-4	Frequent	Absent	Absent	4	2	3
Moehringia trinervia	Three-nerved sandwort	II	2-7	Frequent	7	Absent	2	Absent	Absent
Agrostis capillaris	Common bent	II	4	Occasional	Absent	4	4	Absent	Absent
Galium aparine	Cleavers	II	1-3	Occasional	3	Absent	Absent	1	Absent
Rumex acetosella	Sheep's sorrel	II	4	Occasional	Absent	4	Absent	Absent	4
Carex sylvatica	Wood-sedge	I	3	Occasional	Absent	3	Absent	Absent	Absent
Rubus fruticosus agg.	Bramble	I	2	Occasional	Absent	Absent	2	Absent	Absent
Urtica dioica	Common nettle	I	1	Occasional	Absent	Absent	Absent	Absent	1
Galium saxatile	Heath bedstraw	I	4	Rare	Absent	4	Absent	Absent	Absent
Glechoma hederacea	Ground-ivy	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Alliaria petiolata	Garlic mustard	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Carex riparia	Greater pond-sedge	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Table A8.2.18 – Quadrat data for community 13-01 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Alopecurus pratensis	Meadow foxtail	V	4-9	Abundant	4	8	9	4	5
Juncus articulatus	Jointed rush	V	6-8	Abundant	8	7	6	8	6
Rumex acetosa	Common sorrel	V	2-4	Abundant	3	3	4	2	3
Holcus lanatus	Yorkshire-fog	IV	4-8	Abundant	5	8	4	4	Absent
Cirsium palustre	Marsh thistle	IV	2-4	Frequent	2	2	4	2	Absent
Lotus pedunculatus	Greater bird's-foot-trefoil	IV	2-3	Frequent	3	Absent	2	2	3
Carex nigra	Common sedge	III	3-4	Frequent	4	3	Absent	3	Absent
Festuca rubra	Red fescue	III	2	Frequent	2	2	Absent	2	Absent
Galium uliginosum	Fen bedstraw	III	2	Frequent	2	2	Absent	2	Absent
Ranunculus repens	Creeping buttercup	III	2-3	Occasional	Absent	Absent	2	2	3
Ficaria verna	Lesser celandine	II	1-5	Frequent	5	Absent	Absent	1	Absent
Veronica serpyllifolia	Thyme-leaved speedwell	II	5-7	Frequent	5	7	Absent	Absent	Absent
Veronica chamaedrys	Germander speedwell	I	7	Frequent	Absent	7	Absent	Absent	Absent
Carex flacca	Glaucous sedge	I	2	Occasional	2	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Carex hirta	Hairy sedge	I	4	Occasional	4	Absent	Absent	Absent	Absent
Glechoma hederacea	Ground-ivy	I	4	Occasional	Absent	Absent	Absent	Absent	4
Lathyrus pratensis	Meadow vetchling	I	2	Occasional	Absent	Absent	Absent	2	Absent
Luzula campestris	Field wood-rush	I	4	Occasional	4	Absent	Absent	Absent	Absent
Persicaria amphibia	Amphibious bistort	I	3	Occasional	Absent	Absent	Absent	3	Absent
Ranunculus flammula	Lesser spearwort	I	1	Occasional	Absent	Absent	Absent	1	Absent
Potentilla erecta	Tormentil	I	1	Rare	Absent	1	Absent	Absent	Absent
Senecio vulgaris	Groundsel	I	1	Rare	1	Absent	Absent	Absent	Absent
Urtica dioica	Common nettle	N/A	N/A	Frequent	Absent	Absent	Absent	Absent	Absent
Lolium perenne	Perennial rye-grass	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Anthriscus sylvestris	Cow parsley	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Cerastium fontanum	Common mouse-ear	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Cirsium arvense	Creeping thistle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Dactylis glomerata	Cock's-foot	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Rumex crispus	Curled dock	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Rumex obtusifolius	Broad-leaved dock	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Taraxacum officinale agg.	Dandelion	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Ranunculus acris	Meadow buttercup	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.19 – Quadrat data for community 14-01 – woodland canopy and shrub layer (whole section of woodland surveyed due to small size)

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 1
Fraxinus excelsior	Ash	8	Abundant	8
Quercus robur	Pedunculate oak	7	Frequent	7
Acer pseudoplatanus	Sycamore	4	Occasional	4

Table A8.2.20 – Quadrat data for community 14-01 – woodland understorey / shrub layer (whole section of woodland surveyed due to small size)

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 2
Rubus fruticosus agg.	Bramble	5	Frequent	5
Crataegus monogyna	Hawthorn	4	Frequent	4
Acer campestre	Field maple	4	Occasional	4

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 2
Corylus avellana	Hazel	4	Occasional	4
Prunus spinosa	Blackthorn	4	Occasional	4
Clematis vitalba	Traveller's-joy	2	Rare	2
Sambucus nigra	Elder	1	Occasional	1

Table A8.2.21 – Quadrat data for community 14-01 – woodland field layer (whole section of woodland surveyed due to small size)

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 3
Brachypodium sylvaticum	False brome	7	Abundant	7
Alliaria petiolata	Garlic mustard	4	Frequent	4
Galium aparine	Cleavers	4	Frequent	4
Arum maculatum	Lord’s-and-Ladies	4	Occasional	4
Carex sylvatica	Wood-sedge	4	Occasional	4
Dactylis glomerata	Cock's-foot	4	Occasional	4
Ficaria verna	Lesser celandine	4	Occasional	4
Glechoma hederacea	Ground-ivy	4	Occasional	4
Urtica dioica	Common nettle	4	Occasional	4
Carex remota	Remote sedge	3	Occasional	3

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 3
Poa trivialis	Rough meadow-grass	3	Occasional	3
Primula veris	Cowslip	3	Occasional	3
Geranium robertianum	Herb-Robert	2	Occasional	2
Veronica chamaedrys	Germander speedwell	2	Occasional	2
Elymus repens	Common couch	2	Rare	2

Table A8.2.22 – Quadrat data for community 14-02 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Alopecurus pratensis	Meadow foxtail	V	7-9	Abundant	8	9	8	8	7
Anthoxanthum odoratum	Sweet vernal-grass	V	4-6	Frequent	6	4	4	4	5
Holcus lanatus	Yorkshire-fog	V	4-7	Frequent	6	7	7	5	4
Agrostis stolonifera	Creeping bent	IV	4-5	Frequent	4	4	5	Absent	4
Ficaria verna	Lesser celandine	IV	2-4	Frequent	2	4	4	Absent	4
Ranunculus repens	Creeping buttercup	IV	2-4	Frequent	Absent	2	4	4	4
Lathyrus pratensis	Meadow vetchling	III	2-4	Frequent	Absent	Absent	2	3	4

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Daucus carota subsp. carota	Wild carrot	III	1-3	Occasional	Absent	1	Absent	1	3
Potentilla reptans	Creeping cinquefoil	III	4	Occasional	4	Absent	4	4	Absent
Cerastium fontanum	Common mouse-ear	II	2	Occasional	Absent	Absent	2	Absent	2
Cirsium arvense	Creeping thistle	II	1-4	Occasional	Absent	1	Absent	4	Absent
Glechoma hederacea	Ground-ivy	II	3	Occasional	3	3	Absent	Absent	Absent
Ranunculus acris	Meadow buttercup	II	4	Occasional	4	Absent	Absent	Absent	4
Juncus inflexus	Hard rush	I	4	Frequent	Absent	Absent	Absent	4	Absent
Cirsium palustre	Marsh thistle	I	4	Occasional	Absent	Absent	4	Absent	Absent
Festuca rubra	Red fescue	I	4	Occasional	4	Absent	Absent	Absent	Absent
Primula veris	Cowslip	I	4	Occasional	4	Absent	Absent	Absent	Absent
Pulicaria dysenterica	Common fleabane	I	4	Occasional	Absent	Absent	4	Absent	Absent
Rubus fruticosus agg.	Bramble	I	4	Occasional	Absent	Absent	4	Absent	Absent
Veronica chamaedrys	Germander speedwell	I	3	Occasional	3	Absent	Absent	Absent	Absent
Equisetum arvense	Field horsetail	I	2	Occasional	Absent	Absent	2	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Heracleum sphondylium	Hogweed	I	2	Occasional	Absent	2	Absent	Absent	Absent
Lotus pedunculatus	Greater bird's-foot-trefoil	I	2	Occasional	2	Absent	Absent	Absent	Absent
Rumex crispus	Curled dock	I	1	Occasional	Absent	Absent	1	Absent	Absent
Carex hirta	Hairy sedge	I	2	Rare	2	Absent	Absent	Absent	Absent
Achillea millefolium	Yarrow	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Cardamine pratensis	Cuckooflower	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Carex flacca	Glaucous sedge	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Dipsacus fullonum	Wild teasel	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Luzula campestris	Field wood-rush	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Mentha aquatica	Water mint	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Stellaria holostea	Greater stitchwort	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Table A8.2.23 – Quadrat data for community 17-01 – woodland canopy and shrub layer (50 x 50 m)

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 1
Acer campestre	Field maple	5	Frequent	5
Fraxinus excelsior	Ash	4	Frequent	4
Quercus robur	Pedunculate oak	4	Frequent	4

Table A8.2.24 – Quadrat data for community 17-01 – woodland understorey / shrub layer (10 x 10 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6
Sambucus nigra	Elder	V	4-8	Abundant	4	8	8	4	6
Acer campestre	Field maple	III	4	Frequent	Absent	4	4	4	Absent
Corylus avellana	Hazel	III	4-7	Frequent	7	Absent	Absent	4	4
Crataegus monogyna	Hawthorn	III	4	Frequent	Absent	4	4	4	Absent
Prunus spinosa	Blackthorn	II	4	Frequent	Absent	4	Absent	Absent	4
Rubus fruticosus agg.	Bramble	II	4-6	Occasional	Absent	Absent	4	Absent	6
Rosa canina	Dog-rose	I	4	Occasional	Absent	Absent	4	Absent	Absent
Ulmus procera	English elm	I	2	Occasional	2	Absent	Absent	Absent	Absent
Euonymus europaeus	Spindle	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.25 – Quadrat data for community 17-01 – tall herbaceous vegetation (4 x 4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Alliaria petiolata	Garlic mustard	V	1-8	Abundant	2	4	8	6	1
Mercurialis perennis	Dog's Mercury	V	4-8	Abundant	4	4	8	4	8
Brachypodium sylvaticum	False brome	IV	2-4	Abundant	4	Absent	4	2	2
Arum maculatum	Lord's-and-Ladies	IV	1-4	Frequent	2	Absent	1	1	4
Ficaria verna	Lesser celandine	IV	2-4	Frequent	2	4	4	Absent	4
Moehringia trinervia	Three-nerved sandwort	IV	2-4	Frequent	4	4	4	2	Absent
Veronica hederifolia	Ivy-leaved speedwell	IV	2-5	Frequent	2	Absent	5	4	4
Galium aparine	Cleavers	IV	2-4	Occasional	2	4	4	4	Absent
Silene dioica	Red campion	III	1-4	Occasional	1	4	Absent	Absent	2
Arrhenatherum elatius	False oat-grass	III	2-4	Occasional	2	4	4	Absent	Absent
Urtica dioica	Common nettle	II	4-5	Frequent	4	5	Absent	Absent	Absent
Adoxa moschatellina	Moschatel	II	2-5	Occasional	Absent	Absent	5	2	Absent
Conium maculatum	Hemlock	II	2-5	Occasional	Absent	5	2	Absent	Absent
Hedera helix	Common ivy	II	4	Occasional	Absent	Absent	Absent	4	4

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Hyacinthoides non-scripta	Bluebell	II	3-4	Occasional	Absent	Absent	3	Absent	4
Stellaria holostea	Greater stitchwort	II	1-4	Occasional	4	1	Absent	Absent	Absent
Allium ursinum	Ramsons	I	4	Occasional	Absent	Absent	Absent	4	Absent
Lamium album	White dead-nettle	I	4	Occasional	4	Absent	Absent	Absent	Absent
Lolium perenne	Perennial rye-grass	I	4	Occasional	Absent	Absent	Absent	Absent	4
Dactylis glomerata	Cock's-foot	I	2	Occasional	2	Absent	Absent	Absent	Absent
Glechoma hederacea	Ground-ivy	I	2	Occasional	2	Absent	Absent	Absent	Absent
Lapsana communis	Nipplewort	I	1	Rare	1	Absent	Absent	Absent	Absent
Carex sylvatica	Wood-sedge	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Clematis vitalba	Traveller's-joy	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Geum urbanum	Wood avens	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Heracleum sphondylium	Hogweed	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Ranunculus auricomus	Goldilocks buttercup	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Rumex obtusifolius	Broad-leaved dock	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Table A8.2.26 – Quadrat data for community 18-01 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Schedonorus arundinaceus	Tall fescue	V	4-9	Abundant	5	8	9	9	4
Plantago lanceolata	Ribwort plantain	V	3-5	Frequent	4	5	4	3	4
Festuca rubra	Red fescue	IV	4-7	Frequent	5	7	Absent	4	4
Achillea millefolium	Yarrow	II	2-3	Occasional	2	Absent	Absent	Absent	3
Agrostis stolonifera	Creeping bent	II	3-4	Occasional	Absent	Absent	Absent	4	3
Alopecurus pratensis	Meadow foxtail	II	3-4	Occasional	Absent	Absent	3	Absent	4
Arrhenatherum elatius	False oat-grass	II	4-6	Occasional	4	6	Absent	Absent	Absent
Cirsium arvense	Creeping thistle	II	4	Occasional	Absent	Absent	4	4	Absent
Leucanthemum vulgare	Oxeye daisy	II	2-4	Occasional	4	2	Absent	Absent	Absent
Phleum pratense	Timothy	II	3	Occasional	Absent	3	Absent	Absent	3
Centaurea nigra	Common knapweed	I	4	Occasional	4	Absent	Absent	Absent	Absent
Cynosurus cristatus	Crested dog's-tail	I	4	Occasional	4	Absent	Absent	Absent	Absent
Prunella vulgaris	Selfheal	I	2	Occasional	Absent	Absent	Absent	Absent	2
Agrostis capillaris	Common bent	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Anthoxanthum odoratum	Sweet vernal-grass	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Dactylis glomerata	Cock's-foot	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Elymus repens	Common couch	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Helminthotheca echioides	Bristly oxtongue	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Heracleum sphondylium	Hogweed	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Holcus lanatus	Yorkshire-fog	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Rumex crispus	Curled dock	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Trifolium pratense	Red clover	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Bellis perennis	Daisy	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Geranium dissectum	Cut-leaved crane's-bill	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Hypericum perforatum	Perforate St John's-wort	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Reseda luteola	Weld	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Rhinanthus minor	Yellow-rattle	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Sanguisorba minor	Salad burnet	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.27 – Quadrat data for community 19-01 – tall herbaceous vegetation (4 x 4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Carex leporina	Oval sedge	V	5-9	Abundant	8	9	9	5	5
Juncus inflexus	Hard rush	IV	2-8	Abundant	Absent	2	4	8	7
Urtica dioica	Common nettle	IV	1-4	Frequent	4	4	1	Absent	1
Alopecurus pratensis	Meadow foxtail	IV	3-4	Frequent	3	3	4	3	Absent
Mentha aquatica	Water mint	IV	4	Frequent	Absent	4	4	4	4
Angelica sylvestris	Wild angelica	IV	1	Occasional	1	1	Absent	1	1
Calystegia sepium	Hedge bindweed	IV	1-3	Occasional	Absent	1	3	3	3
Scutellaria galericulata	Skullcap	III	2-6	Frequent	6	2	Absent	Absent	2
Poa trivialis	Rough meadow-grass	III	1-4	Occasional	3	4	Absent	Absent	1
Rumex crispus	Curled dock	III	2-4	Occasional	Absent	Absent	2	2	4
Pulicaria dysenterica	Common fleabane	II	3	Occasional	3	Absent	Absent	Absent	3
Cirsium arvense	Creeping thistle	II	1	Rare	1	1	Absent	Absent	Absent
Lycopus europaeus	Gypsywort	II	2-3	Rare	Absent	Absent	Absent	3	2
Equisetum	Horsetail sp.	II	1	Rare	Absent	Absent	Absent	1	1
Rumex acetosa	Common sorrel	I	1	Rare	1	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Cirsium palustre	Marsh thistle	I	1	Rare	1	Absent	Absent	Absent	Absent
Galium aparine	Cleavers	I	1	Rare	1	Absent	Absent	Absent	Absent
Carex hirta	Hairy sedge	I	2	Rare	Absent	Absent	2	Absent	Absent
Epilobium hirsutum	Great willowherb	I	1	Rare	Absent	Absent	1	Absent	Absent
Myosotis scorpioides	Water forget-me-not	I	4	Rare	Absent	Absent	Absent	4	Absent
Juncus effusus	Soft rush	I	1	Rare	Absent	Absent	Absent	1	Absent
Rumex obtusifolius	Broad-leaved dock	I	1	Rare	Absent	Absent	Absent	1	Absent
Scrophularia nodosa	Common figwort	I	1	Rare	Absent	Absent	Absent	1	Absent
Eupatorium cannabinum	Hemp-agrimony	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Typha latifolia	Bulrush	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Cardamine pratensis	Cuckooflower	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Glyceria maxima	Reed sweet-grass	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.28 – Quadrat data for community 19-02 – tall herbaceous vegetation (4 x 4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Carex riparia	Greater pond-sedge	V	8-9	Abundant	8	9	8	8	9
Carex acutiformis	Lesser pond-sedge	V	5-6	Abundant	6	5	6	6	5
Alopecurus pratensis	Meadow foxtail	V	1-3	Occasional	1	2	3	2	1
Poa trivialis	Rough meadow-grass	IV	2-3	Frequent	3	3	3	Absent	2
Carex leporina	Oval sedge	IV	1-3	Frequent	Absent	1	3	2	2
Juncus acutiflorus	Sharp-flowered rush	III	1-2	Occasional	Absent	Absent	2	1	1
Mentha aquatica	Water mint	II	1-2	Occasional	Absent	Absent	1	Absent	2
Rumex crispus	Curled dock	II	1-2	Rare	Absent	2	1	Absent	Absent
Lathyrus pratensis	Meadow vetchling	I	1	Rare	Absent	Absent	1	Absent	Absent
Urtica dioica	Common nettle	I	1	Rare	Absent	Absent	1	Absent	Absent
Filipendula ulmaria	Meadowsweet	I	1	Rare	Absent	Absent	1	Absent	Absent

Table A8.2.29 – Quadrat data for community 19-03 – woodland canopy and shrub layer (whole section of woodland surveyed due to small size)

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 1
Alnus glutinosa	Alder	7	Abundant	7
Salix fragilis	Crack-willow	6	Frequent	6
Crataegus monogyna	Hawthorn	4	Occasional	4
Prunus spinosa	Blackthorn	4	Occasional	4
Ulmus procera	English elm	4	Rare	4
Fraxinus excelsior	Ash	4	Rare	4
Corylus avellana	Hazel	4	Rare	4
Aesculus hippocastanum	Horse-chestnut	4	Rare	4
Rosa canina	Dog-rose	1	Rare	1

Table A8.2.30 – Quadrat data for community 19-03 – woodland field layer (2 m x 8 m quadrat due to linear nature of woodland)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6
Poa trivialis	Rough meadow-grass	V	2-3	Frequent	2	3	3	2	2
Urtica dioica	Common nettle	V	9-10	Dominant	10	10	10	10	9
Galium aparine	Cleavers	IV	1	Occasional	1	1	1	Absent	1
Brachypodium sylvaticum	False brome	II	2-3	Occasional	Absent	Absent	Absent	3	2

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6
Poa nemoralis	Wood meadow-grass	II	3-4	Occasional	Absent	Absent	Absent	3	4
Solanum dulcamara	Bittersweet	II	1	Rare	Absent	Absent	1	1	Absent
Alliaria petiolata	Garlic mustard	II	1	Rare	Absent	Absent	1	Absent	1
Allium ursinum	Ramsons	II	1	Rare	Absent	Absent	Absent	1	1
Adoxa moschatellina	Moschatel	I	2	Rare	Absent	Absent	Absent	Absent	2
Angelica sylvestris	Wild angelica	I	1	Rare	Absent	Absent	1	Absent	Absent
Heracleum sphondylium	Hogweed	I	1	Rare	Absent	Absent	Absent	1	Absent
Anthriscus sylvestris	Cow parsley	I	1	Rare	Absent	Absent	Absent	Absent	1

Table A8.2.31 – Quadrat data for community 22-01 – woodland canopy and shrub layer (whole section of woodland surveyed due to small size)

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 1
Fraxinus excelsior	Ash	2	Occasional	2
Acer campestre	Field maple	2	Occasional	2
Ulmus procera	English elm	2	Occasional	2

Table A8.2.32 – Quadrat data for community 22-01 – woodland understorey / shrub layer (10 x 10 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6
Crataegus monogyna	Hawthorn	V	6-8	Frequent	8	8	7	6	8
Prunus spinosa	Blackthorn	IV	4-6	Frequent	4	4	6	Absent	4
Sambucus nigra	Elder	II	4	Occasional	4	Absent	4	Absent	Absent
Acer campestre	Field maple	II	4	Occasional	Absent	4	Absent	Absent	Absent
Ulmus procera	English elm	I	5	Occasional	Absent	Absent	Absent	5	Absent
Ilex aquifolium	Holly	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Prunus domestica	Wild plum	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.33 – Quadrat data for community 22-01 – woodland field layer (4 x 4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Brachypodium sylvaticum	False brome	V	3-5	Abundant	3	4	5	5	5
Holcus lanatus	Yorkshire-fog	V	3-4	Frequent	4	4	3	4	4
Mercurialis perennis	Dog's Mercury	IV	4-5	Frequent	Absent	4	4	5	4
Anthriscus sylvestris	Cow parsley	IV	2-7	Frequent	7	5	4	Absent	2
Glechoma hederacea	Ground-ivy	III	2-4	Frequent	Absent	2	2	4	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Galium aparine	Cleavers	III	5-6	Frequent	6	Absent	5	5	Absent
Hedera helix	Common ivy	III	4-7	Frequent	Absent	Absent	4	7	6
Alliaria petiolata	Garlic mustard	III	4-8	Frequent	7	8	4	Absent	Absent
Rubus fruticosus agg.	Bramble	III	3-5	Occasional	Absent	3	3	Absent	5
Arum maculatum	Lord's-and-Ladies	II	1-2	Occasional	2	Absent	1	Absent	Absent
Dactylis glomerata	Cock's-foot	II	2-4	Occasional	Absent	Absent	Absent	4	2
Arctium minus	Lesser burdock	I	1	Occasional	1	Absent	Absent	Absent	Absent
Geum urbanum	Wood avens	I	1	Occasional	Absent	Absent	Absent	Absent	1
Geranium robertianum	Herb-Robert	I	2	Occasional	Absent	Absent	Absent	Absent	2
Moehringia trinervia	Three-nerved sandwort	I	3	Occasional	Absent	3	Absent	Absent	Absent
Clematis vitalba	Traveller's-joy	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Daphne laureola	Spurge-laurel	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Rosa canina	Dog-rose	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Veronica hederifolia	Ivy-leaved speedwell	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Ficaria verna	Lesser celandine	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Urtica dioica	Common nettle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Stachys sylvatica	Hedge woundwort	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Veronica chamaedrys	Germander speedwell	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Primula veris	Cowslip	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Stellaria holostea	Greater stitchwort	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Taraxacum officinale agg.	Dandelion	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Carex sylvatica	Wood-sedge	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Lamium album	White dead-nettle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Lapsana communis	Nipplewort	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Hypericum perforatum	Perforate St John's-wort	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Achillea millefolium	Yarrow	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.34 – Quadrat data for community 23-01 – tall herbaceous vegetation (4 x 4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Carex riparia	Greater pond-sedge	V	6-9	Abundant	8	9	9	9	6
Agrostis stolonifera	Creeping bent	V	5-6	Abundant	6	6	5	5	5
Rumex crispus	Curled dock	V	1-2	Frequent	1	2	1	2	1
Persicaria maculosa	Redshank	III	1-4	Frequent	1	3	4	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Carex leporina	Oval sedge	II	5-6	Frequent	Absent	Absent	Absent	5	6
Rumex conglomeratus	Clustered dock	II	1-2	Occasional	2	Absent	1	Absent	Absent
Elymus repens	Common couch	I	4	Rare	Absent	4	Absent	Absent	Absent
Carex acuta	Slender tufted-sedge	I	4	Rare	Absent	Absent	Absent	Absent	4

Table A8.2.35 – Quadrat data for community 26-01 – tall herbaceous vegetation (4 x 4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Typha latifolia	Bulrush	V	4-8	Abundant	8	4	7	8	5
Sparganium erectum	Branched bur-reed	V	6-9	Abundant	8	9	7	7	6
Lemna sp.	Duckweed species	V	4-5	Frequent	5	4	4	4	5
Mentha aquatica	Water mint	V	2-6	Frequent	2	6	4	2	3
Lycopus europaeus	Gypsywort	II	1-2	Occasional	1	Absent	2	Absent	Absent
Juncus effusus	soft-rush	N/A	N/A	Frequent	Absent	Absent	Absent	Absent	Absent
Juncus inflexus	Hard rush	N/A	N/A	Frequent	Absent	Absent	Absent	Absent	Absent
Angelica sylvestris	Wild angelica	N/A	N/A	Frequent	Absent	Absent	Absent	Absent	Absent
Galium palustre	Marsh-bedstraw	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Myosotis scorpioides	Water forget-me-not	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Rumex crispus	Curled dock	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Solanum dulcamara	Bittersweet	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Epilobium hirsutum	Great willowherb	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Cirsium palustre	Marsh thistle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Lotus pedunculatus	Greater bird's-foot-trefoil	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Table A8.2.36 – Quadrat data for community 26-02 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Rumex acetosella	Sheep’s sorrel	V	8-9	Abundant	8	8	9	8	9
Polytrichum sp.	Moss	V	6-7	Abundant	6	6	7	7	6
Festuca ovina	Sheep's-fescue	V	4-6	Abundant	6	6	5	5	4
Veronica persica	Common field-speedwell	V	3-4	Frequent	4	3	3	3	3
Myosotis ramosissima	Early forget-me-not	V	2-4	Abundant	4	2	2	5	4
Erodium cicutarium	Common stork's-bill	V	2-4	Abundant	3	3	3	4	2

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Jacobaea vulgaris	Common ragwort	V	2-4	Frequent	4	4	2	4	4
Geranium molle	Dove's-foot crane's-bill	V	2	Frequent	2	2	2	2	2
Agrostis capillaris	Common bent	IV	5-6	Abundant	7	6	5	5	Absent
Holcus lanatus	Yorkshire-fog	IV	2-4	Frequent	Absent	4	2	4	4
Rubus fruticosus agg.	Bramble	II	1-4	Occasional	Absent	1	Absent	4	Absent
Taraxacum officinale agg.	Dandelion	II	2	Occasional	2	Absent	Absent	2	Absent
Pilosella officinarum	Mouse-ear-hawkweed	II	1-2	Occasional	Absent	2	Absent	1	Absent
Hypochaeris radicata	Cat's-ear	I	2	Rare	Absent	2	Absent	Absent	Absent
Filago germanica	Common cudweed	I	1	Rare	Absent	Absent	1	Absent	Absent
Cirsium vulgare	Spear thistle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Carduus nutans	Musk thistle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Cladonia sp.	Cladonia lichen	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Glechoma hederacea	Ground-ivy	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Table A8.2.37 – Quadrat data for community 27-01 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Bromus hordeaceus	Soft-brome	V	4-7	Frequent	7	4	4	6	4
Vulpia myuros	Rat's-tail fescue	IV	4-5	Frequent	4	4	5	Absent	4
Carduus nutans	Musk thistle	IV	1-5	Frequent	Absent	5	4	1	4
Cirsium vulgare	Spear thistle	IV	1-5	Frequent	Absent	4	1	4	5
Geranium molle	Dove's-foot crane's-bill	IV	2	Frequent	2	Absent	2	2	2
Festuca ovina	Sheep's-fescue	III	5-6	Frequent	5	5	Absent	Absent	6
Schedonorus pratensis	Meadow fescue	III	4-5	Frequent	Absent	5	Absent	4	5
Rumex acetosella	Sheep’s sorrel	III	1-5	Frequent	Absent	1	5	4	Absent
Veronica persica	Common field-speedwell	III	2-3	Frequent	2	Absent	2	Absent	3
Agrostis stolonifera	Creeping bent	II	4	Frequent	4	Absent	Absent	4	Absent
Agrostis capillaris	Common bent	II	4	Frequent	Absent	4	Absent	4	Absent
Holcus lanatus	Yorkshire-fog	II	4	Frequent	Absent	4	Absent	4	Absent
Jacobaea vulgaris	Common ragwort	II	4	Occasional	Absent	4	Absent	4	Absent
Urtica dioica	Common nettle	II	4	Occasional	Absent	4	4	Absent	Absent
Vicia sp.	Tare species	II	1-2	Occasional	1	Absent	2	Absent	Absent
Cerastium fontanum	Common mouse-ear	I	2	Occasional	Absent	Absent	Absent	Absent	2

Table A8.2.38 – Quadrat data for community 28-01 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Poa trivialis	Rough meadow-grass	V	3-7	Abundant	3	7	6	5	6
Helminthotheca echioides	Bristly oxtongue	V	2-6	Abundant	4	5	2	5	6
Holcus lanatus	Yorkshire-fog	V	4-8	Frequent	8	5	4	5	5
Bromus hordeaceus	Soft-brome	V	2-4	Frequent	2	4	4	4	2
Vulpia myuros	Rat's-tail fescue	IV	4-8	Abundant	8	6	7	4	Absent
Arrhenatherum elatius	False oat-grass	IV	1-4	Frequent	2	1	Absent	4	2
Rumex obtusifolius	Broad-leaved dock	IV	1-4	Frequent	1	4	1	2	Absent
Crepis capillaris	Smooth hawk's-beard	IV	1-3	Frequent	2	1	2	3	Absent
Ervum tetraspermum	Smooth tare	III	4-7	Frequent	Absent	7	Absent	4	7
Trifolium medium	Zigzag clover	III	2-5	Frequent	4	2	Absent	5	Absent
Juncus bufonius	Toad rush	III	2-4	Frequent	4	2	2	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Cerastium fontanum	Common mouse-ear	III	3	Occasional	3	Absent	Absent	3	3
Veronica persica	Common field-speedwell	III	1-2	Occasional	1	2	1	Absent	Absent
Cirsium arvense	Creeping thistle	III	1	Occasional	1	1	Absent	1	Absent
Agrostis capillaris	Common bent	II	2-4	Frequent	4	2	Absent	Absent	Absent
Filago germanica	Common cudweed	II	3	Frequent	3	Absent	3	Absent	Absent
Matricaria chamomilla	Scented mayweed	II	2-3	Frequent	Absent	Absent	3	2	Absent
Agrostis stolonifera	Creeping bent	II	4	Occasional	Absent	4	Absent	Absent	4
Geranium dissectum	Cut-leaved crane's-bill	II	3	Occasional	Absent	3	Absent	3	Absent
Achillea millefolium	Yarrow	II	2	Occasional	2	Absent	2	Absent	Absent
Lotus corniculatus	Common bird's-foot-trefoil	II	2	Occasional	2	Absent	Absent	2	Absent
Avena fatua	Wild-oat	II	1	Occasional	1	Absent	Absent	Absent	1
Heracleum sphondylium	Hogweed	II	1	Occasional	1	Absent	Absent	1	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Jacobaea vulgaris	Common ragwort	II	1	Occasional	1	Absent	Absent	1	Absent
Papaver rhoeas	Common poppy	I	3	Occasional	Absent	Absent	3	Absent	Absent
Trifolium campestre	Hop trefoil	I	2	Occasional	2	Absent	Absent	Absent	Absent
Leucanthemum vulgare	Oxeye daisy	I	2	Occasional	Absent	Absent	2	Absent	Absent
Epilobium montanum	Broad-leaved willowherb	I	2	Occasional	Absent	2	Absent	Absent	Absent
Hypochaeris radicata	Cat's-ear	I	2	Rare	Absent	Absent	2	Absent	Absent
Vicia sativa	Common vetch	I	1	Rare	1	Absent	Absent	Absent	Absent
Erodium cicutarium	Common stork's-bill	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Senecio squalidus	Oxford ragwort	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Vicia sepium	Bush vetch	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Ranunculus repens	Creeping buttercup	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Cirsium vulgare	Spear thistle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Lycopsis arvensis	Bugloss	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Convolvulus arvensis	Field bindweed	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Anisantha sterilis	Barren brome	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Dactylis glomerata	Cock's-foot	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Poterium sanguisorba subsp. balearicum	Fodder burnet	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Rubus fruticosus agg.	Bramble	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Crataegus monogyna	Hawthorn	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Tripleurospermum inodorum	Scentless mayweed	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Centaurea nigra	Common knapweed	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Trifolium repens	White clover	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Tragopogon pratensis	Goat's-beard	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Trifolium pratense	Red clover	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.39 – Quadrat data for community 31-01 – woodland canopy and shrub layer (whole section of woodland surveyed due to small size)

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 1
Alnus glutinosa	Alder	9	Dominant	9
Dryopteris dilatata	Broad buckler-fern	7	Occasional	7
Salix alba	White willow	5	Occasional	5
Fraxinus excelsior	Ash	4	Occasional	4
Betula pendula	Silver birch	2	Occasional	2
Castanea sativa	Sweet chestnut	1	Rare	1
Pinus sylvestris	Scots pine	1	Rare	1

Table A8.2.40 – Quadrat data for community 31-01 – woodland understorey / shrub layer (10 x 10 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6
Sambucus nigra	Elder	V	4-10	Abundant	4	7	10	8	4
Prunus laurocerasus	Cherry laurel	I	4	Occasional	Absent	4	Absent	Absent	Absent
Crataegus monogyna	Hawthorn	I	4	Occasional	Absent	4	Absent	Absent	Absent
Rubus fruticosus agg.	Bramble	I	4	Occasional	Absent	4	Absent	Absent	Absent
Corylus avellana	Hazel	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Rosa canina	Dog-rose	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.41 – Quadrat data for community 31-01 – woodland field layer (4 x 4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Hyacinthoides non-scripta	Bluebell	IV	3-5	Frequent	3	5	Absent	5	4
Urtica dioica	Common nettle	III	2-9	Frequent	Absent	6	9	2	Absent
Silene dioica	Red campion	III	2-3	Frequent	Absent	3	2	3	Absent
Pteridium aquilinum	Bracken	II	6-9	Frequent	6	Absent	Absent	Absent	9
Poa sp.	Meadow-grass	II	3-4	Occasional	Absent	4	3	Absent	Absent
Stellaria holostea	Greater stitchwort	II	3	Occasional	Absent	Absent	3	3	Absent
Digitalis purpurea	Foxglove	II	2-3	Occasional	Absent	Absent	Absent	3	2
Galium aparine	Cleavers	II	2-3	Occasional	Absent	3	2	Absent	Absent
Glechoma hederacea	Ground-ivy	I	6	Occasional	Absent	6	Absent	Absent	Absent
Stellaria media	Common chickweed	I	5	Occasional	Absent	Absent	Absent	5	Absent
Rubus fruticosus agg.	Bramble	I	4	Occasional	6	Absent	Absent	Absent	9
Holcus lanatus	Yorkshire-fog	I	4	Occasional	4	Absent	Absent	Absent	Absent
Hedera helix	Common ivy	I	2	Occasional	2	Absent	Absent	Absent	Absent
Geranium robertianum	Herb-Robert	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.42 – Quadrat data for community 32-01 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Cynosurus cristatus	Crested dog's-tail	V	6-7	Abundant	6	6	7	7	7
Festuca rubra	Red fescue	V	4-6	Abundant	6	4	5	5	6
Daucus carota subsp. carota	Wild carrot	V	4	Abundant	4	4	4	4	4
Leucanthemum vulgare	Oxeye daisy	V	3-4	Abundant	3	3	4	3	3
Plantago lanceolata	Ribwort plantain	V	1-5	Frequent	3	2	1	3	5
Agrostis stolonifera	Creeping bent	V	4	Frequent	4	4	4	4	4
Agrostis capillaris	Common bent	V	3-4	Frequent	4	4	3	4	4
Lathyrus nissolia	Grass vetchling	V	1-2	Frequent	1	1	1	1	2
Galium verum	Lady’s bedstraw	V	1-3	Frequent	3	2	1	3	3
Trifolium dubium	Lesser trefoil	V	2-3	Frequent	3	2	3	3	3
Prunella vulgaris	Selfheal	V	1-2	Occasional	2	2	1	1	1
Leontodon hispidus	Rough hawkbit	V	1-4	Occasional	1	1	2	3	4
Taraxacum officinale agg.	Dandelion	V	1	Occasional	1	1	1	1	1
Vicia sativa	Common vetch	IV	1	Rare	1	1	Absent	1	1
Dactylis glomerata	Cock's-foot	IV	1-3	Rare	3	2	3	1	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Lolium perenne	Perennial rye-grass	IV	1-3	Rare	Absent	2	1	3	2
Cerastium fontanum	Common mouse-ear	IV	1-3	Occasional	Absent	1	1	3	2
Holcus lanatus	Yorkshire-fog	IV	1-4	Rare	4	4	1	Absent	2
Centaurea nigra	Common knapweed	IV	1-4	Frequent	4	4	2	1	Absent
Medicago lupulina	Black medick	IV	1-4	Occasional	4	2	1	Absent	1
Vulpia myuros	Rat's-tail fescue	III	1-4	Occasional	Absent	1	3	Absent	4
Centaurium erythraea	Common centaury	II	1	Rare	Absent	Absent	1	1	Absent
Bromus hordeaceus	Soft-brome	II	4	Occasional	Absent	Absent	Absent	4	4
Sanguisorba minor	Salad burnet	II	1-2	Rare	1	Absent	Absent	2	Absent
Trifolium pratense	Red clover	II	1-3	Rare	Absent	1	3	Absent	Absent
Poa pratensis	Smooth meadow-grass	II	1-4	Rare	4	Absent	Absent	Absent	1
Poa trivialis	Rough meadow-grass	II	1-4	Rare	4	Absent	Absent	Absent	1
Ranunculus acris	Meadow buttercup	I	3	Rare	3	Absent	Absent	Absent	Absent
Ranunculus repens	Creeping buttercup	I	1	Rare	Absent	Absent	1	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Geranium molle	Dove's-foot crane's-bill	I	1	Rare	1	Absent	Absent	Absent	Absent
Trifolium repens	White clover	I	1	Rare	Absent	Absent	Absent	Absent	1
Carex panicea	Carnation sedge	I	1	Rare	Absent	Absent	Absent	Absent	1

Table A8.2.43 – Quadrat data for community 36-01 – woodland canopy and shrub layer (whole section of woodland surveyed due to small size)

Scientific Name	Common Name	Domin Range	DAFOR	Quadrat 1
Quercus robur	Pedunculate oak	9	Abundant	9
Fraxinus excelsior	Ash	5	Frequent	5
Carpinus betulus	Hornbeam	4	Frequent	4
Betula pendula	Silver birch	4	Occasional	4
Castanea sativa	Sweet chestnut	1	Rare	1

Table A8.2.44 – Quadrat data for community 36-01 – woodland understorey / shrub layer (10 x 10 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6
Rubus fruticosus agg.	Bramble	IV	4-7	Abundant	6	7	Absent	7	4
Corylus avellana	Hazel	IV	4-6	Frequent	Absent	4	4	6	6
Prunus spinosa	Blackthorn	II	4	Frequent	4	Absent	4	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5	Quadrat 6
Ilex aquifolium	Holly	II	4	Occasional	Absent	4	Absent	Absent	4
Lonicera periclymenum	Honeysuckle	II	2-3	Occasional	Absent	Absent	2	Absent	3
Carpinus betulus	Hornbeam	I	4	Frequent	4	Absent	Absent	Absent	Absent
Acer campestre	Field maple	I	5	Occasional	5	Absent	Absent	Absent	Absent

Table A8.2.45 – Quadrat data for community 36-01 – woodland field layer (4 x 4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Brachypodium sylvaticum	False brome	IV	2-5	Frequent	2	5	4	4	Absent
Rumex sanguineus	Wood dock	III	2	Occasional	Absent	2	Absent	2	2
Hedera helix	Common ivy	II	4-5	Frequent	Absent	Absent	4	5	Absent
Stellaria holostea	Greater stitchwort	II	4-5	Occasional	Absent	4	Absent	5	Absent
Poa sp.	Meadow-grass	II	3	Occasional	Absent	3	3	Absent	Absent
Dactylis glomerata	Cock's-foot	II	2	Occasional	Absent	2	2	Absent	Absent
Silene dioica	Red campion	II	1-2	Occasional	Absent	2	Absent	Absent	1
Agrostis stolonifera	Creeping bent	I	4	Occasional	4	Absent	Absent	Absent	Absent
Arrhenatherum elatius	False oat-grass	I	4	Occasional	4	Absent	Absent	Absent	Absent
Holcus lanatus	Yorkshire-fog	I	3	Occasional	3	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 7	Quadrat 8	Quadrat 9	Quadrat 10	Quadrat 11
Pteridium aquilinum	Bracken	I	3	Occasional	Absent	Absent	Absent	Absent	3
Elymus repens	Common couch	I	2	Rare	2	Absent	Absent	Absent	Absent
Dryopteris filix-mas	Male-fern	I	1	Rare	Absent	Absent	Absent	Absent	1
Carex remota	Remote sedge	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Arum maculatum	Lord's-and-Ladies	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Urtica dioica	Common nettle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Rumex obtusifolius	Broad-leaved dock	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Milium effusum	Wood millet	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Rosa arvensis	Field-rose	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Deschampsia cespitosa	Tufted hair-grass	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Scrophularia nodosa	Common figwort	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.46 – Quadrat data for community 39-01 – woodland canopy and shrub layer (50 x 50 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 6	Quadrat 10
Quercus robur	Pedunculate oak	N/A	10	Dominant	10	10	7
Fraxinus excelsior	Ash	N/A	1-4	Occasional	1	4	7

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 6	Quadrat 10
Sorbus aria	Common whitebeam	N/A	1	Rare	1	1	Absent
Acer campestre	Field maple	N/A	4	Occasional	Absent	Absent	4
Sorbus torminalis	Wild service-tree	N/A	1	Rare	Absent	1	Absent

Table A8.2.47 – Quadrat data for community 39-01 – woodland understorey / shrub layer (10 x 10 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 2	Quadrat 4	Quadrat 7	Quadrat 9
Crataegus monogyna	Hawthorn	N/A	4-6	Frequent	6	4	4	4
Prunus spinosa	Blackthorn	N/A	1-4	Frequent	4	1	4	1
Rosa sp.	Rose	N/A	4	Rare	Absent	4	4	Absent
Rubus fruticosus agg.	Bramble	N/A	4	Frequent	Absent	Absent	4	4
Fraxinus excelsior	Ash	N/A	6	Occasional	6	Absent	Absent	Absent
Quercus robur	Pedunculate oak	N/A	1	Dominant	Absent	Absent	Absent	1
Euonymus europaeus	Spindle	N/A	4	Rare	Absent	4	Absent	Absent
Acer campestre	Field maple	N/A	4	Occasional	Absent	Absent	Absent	4

Table A8.2.48 – Quadrat data for community 39-01 – woodland field layer (4 x 4 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 3	Quadrat 5	Quadrat 8
Poa trivialis	Rough meadow-grass	N/A	8-10	Abundant	Absent	10	8
Rubus fruticosus agg.	Bramble	N/A	1-4	Frequent	Absent	1	4
Stellaria holostea	Greater stitchwort	N/A	5-8	Occasional	8	Absent	5
Dactylis glomerata	Cock's-foot	N/A	1-4	Rare	4	1	Absent
Geum urbanum	Wood avens	N/A	1	Rare	1	Absent	Absent
Glechoma hederacea	Ground-ivy	N/A	1	Rare	Absent	Absent	1
Ophioglossum vulgatum	Adder's-tongue	N/A	1	Rare	Absent	Absent	1
Galium aparine	Cleavers	N/A	1	Rare	Absent	Absent	1
Holcus mollis	Creeping soft-grass	N/A	4	Rare	4	Absent	Absent

Table A8.2.49 – Quadrat data for community 40-01 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Arrhenatherum elatius	False oat-grass	V	4-10	Abundant	9	10	8	8	4
Ervum tetraspermum	Smooth tare	V	4-7	Abundant	7	5	4	4	4
Elymus repens	Common couch	V	3-7	Frequent	5	3	7	4	5
Convolvulus arvensis	Field bindweed	V	2-5	Frequent	4	5	2	3	3
Hordeum secalinum	Meadow barley	IV	2-7	Frequent	5	2	2	7	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Alopecurus pratensis	Meadow foxtail	III	4	Frequent	Absent	4	Absent	4	4
Jacobaea erucifolia	Hoary ragwort	III	1-3	Frequent	Absent	1	2	Absent	3
Lathyrus pratensis	Meadow vetchling	II	4-6	Frequent	6	4	Absent	Absent	Absent
Epilobium hirsutum	Great willowherb	II	1-4	Frequent	Absent	Absent	1	Absent	4
Epilobium montanum	Broad-leaved willowherb	II	1-3	Frequent	Absent	Absent	1	3	Absent
Dactylis glomerata	Cock's-foot	II	2-4	Occasional	Absent	Absent	Absent	4	2
Geranium pratense	Meadow crane's-bill	II	1-2	Occasional	Absent	Absent	1	Absent	2
Trisetum flavescens	Yellow oat-grass	I	5	Occasional	Absent	Absent	Absent	Absent	5
Holcus lanatus	Yorkshire-fog	I	4	Frequent	4	Absent	Absent	Absent	Absent
Schedonorus arundinaceus	Tall fescue	I	4	Occasional	Absent	Absent	Absent	Absent	4
Ranunculus repens	Creeping buttercup	I	4	Occasional	Absent	Absent	Absent	4	Absent
Anisantha sterilis	Barren brome	I	2	Occasional	2	Absent	Absent	Absent	Absent
Tragopogon pratensis	Goat's-beard	I	1	Occasional	Absent	Absent	1	Absent	Absent
Phleum pratense	Timothy	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Poa trivialis	Rough meadow-grass	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Heracleum sphondylium	Hogweed	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Lactuca serriola	Prickly lettuce	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Rumex obtusifolius	Broad-leaved dock	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Torilis japonica	Upright hedge-parsley	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Potentilla reptans	Creeping cinquefoil	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Rubus fruticosus agg.	Bramble	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Crataegus monogyna	Hawthorn	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Quercus robur	Pedunculate oak	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Prunus spinosa	Blackthorn	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Achillea millefolium	Yarrow	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Carex spicata	Spiked sedge	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Rumex crispus	Curled dock	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Agrimonia eupatoria	Agrimony	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Galega officinalis	Goat's-rue	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Rosa canina	Dog-rose	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Ulmus procera	English elm	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Fraxinus excelsior	Ash	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.50 – Quadrat data for community 42-01 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Vulpia myuros	Rat's-tail fescue	V	4-6	Abundant	5	4	4	6	5
Holcus lanatus	Yorkshire-fog	V	3-6	Abundant	3	5	6	4	5
Aphanes arvensis	Parsley-piert	V	3-4	Frequent	4	3	3	3	3
Myosotis ramosissima	Early forget-me-not	V	3-5	Frequent	5	3	3	4	3
Jacobaea vulgaris	Common ragwort	V	3-4	Frequent	3	4	4	4	3
Veronica arvensis	Wall speedwell	V	3	Frequent	3	3	3	3	3
Geranium molle	Dove's-foot crane's-bill	V	3-5	Occasional	3	3	3	5	3
Sphagnum sp.	Moss spp.	V	3	Occasional	3	3	3	3	3
Erodium cicutarium	Common stork's-bill	IV	3	Frequent	3	3	3	3	Absent
Galega officinalis	Goat's-rue	III	3-4	Frequent	3	4	3	Absent	Absent
Hypericum perforatum	Perforate St John's-wort	III	3	Occasional	3	Absent	Absent	3	3
Dipsacus fullonum	Wild teasel	III	3	Occasional	3	3	3	Absent	Absent
Geranium dissectum	Cut-leaved crane's-bill	III	3	Rare	3	3	3	Absent	Absent
Anisantha sterilis	Barren brome	II	4-5	Occasional	Absent	Absent	Absent	5	4
Plantago lanceolata	Ribwort plantain	II	3	Occasional	3	3	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Senecio inaequidens	Narrow-leaved ragwort	II	3	Occasional	3	3	Absent	Absent	Absent
Medicago arabica	Spotted medick	II	3	Occasional	3	Absent	Absent	Absent	3
Dactylis glomerata	Cock's-foot	II	3-4	Rare	3	4	Absent	Absent	Absent
Cerastium glomeratum	Sticky mouse-ear	II	3-4	Rare	4	3	Absent	Absent	Absent
Leontodon hispidus	Rough hawkbit	II	3	Rare	3	3	Absent	Absent	Absent
Sanguisorba minor	Salad burnet	I	4	Rare	Absent	Absent	4	Absent	Absent
Catapodium rigidum	Fern-grass	I	3	Rare	3	Absent	Absent	Absent	Absent
Filago germanica	Common cudweed	I	3	Rare	3	Absent	Absent	Absent	Absent
Helminthotheca echiodes	Bristly oxtongue	I	3	Rare	3	Absent	Absent	Absent	Absent
Taraxacum officinale agg.	Dandelion	I	3	Rare	3	Absent	Absent	Absent	Absent
Plantago media	Hoary plantain	I	3	Rare	3	Absent	Absent	Absent	Absent
Sherardia arvensis	Field madder	I	3	Rare	Absent	3	Absent	Absent	Absent
Malva sylvestris	Common mallow	I	3	Rare	Absent	Absent	Absent	3	Absent
Poa pratensis	Smooth meadow-grass	I	3	Rare	Absent	Absent	3	Absent	Absent
Bromus hordeaceus	Soft-brome	I	3	Rare	Absent	Absent	3	Absent	Absent
Vicia cracca	Tufted vetch	I	3	Rare	Absent	Absent	Absent	Absent	3

Table A8.2.51 – Quadrat data for community 42-02 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Cerastium fontanum	Common mouse-ear	V	3-6	Frequent	4	4	3	3	6
Vulpia myuros	Rat's-tail fescue	IV	5-6	Abundant	5	6	5	5	Absent
Holcus lanatus	Yorkshire-fog	IV	4-5	Frequent	4	4	4	Absent	5
Sphagnum sp.	Moss spp.	III	5	Frequent	5	5	Absent	Absent	5
Vicia sativa	Common vetch	III	3	Occasional	3	3	Absent	Absent	3
Leontodon hispidus	Rough hawkbit	III	4	Occasional	4	4	Absent	Absent	4
Plantago lanceolata	Ribwort plantain	II	4	Occasional	4	Absent	Absent	Absent	4
Dactylis glomerata	Cock's-foot	II	4	Occasional	4	Absent	Absent	4	Absent
Jacobaea vulgaris	Common ragwort	II	3	Occasional	3	3	Absent	Absent	Absent
Myosotis ramosissima	Early forget-me-not	II	3	Occasional	3	Absent	Absent	Absent	3
Leucanthemum vulgare	Oxeye daisy	II	3	Occasional	Absent	3	Absent	Absent	3
Vicia sativa	Common vetch	II	3	Occasional	Absent	3	3	Absent	Absent
Agrostis capillaris	Common bent	I	4	Rare	4	Absent	Absent	Absent	Absent
Hypochaeris radicata	Cat's-ear	I	4	Rare	4	Absent	Absent	Absent	Absent
Trifolium repens	White clover	I	4	Rare	Absent	4	Absent	Absent	Absent
Medicago lupulina	Black medick	I	4	Rare	Absent	4	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Centaurium erythraea	Common centaury	I	4	Rare	Absent	Absent	Absent	4	Absent
Agrostis capillaris	Common bent	I	4	Rare	Absent	Absent	Absent	Absent	4
Vulpia myuros	Rat's-tail fescue	I	4	Rare	Absent	Absent	Absent	Absent	4
Achillea millefolium	Yarrow	I	3	Rare	3	Absent	Absent	Absent	Absent
Catapodium rigidum	Fern-grass	I	3	Rare	3	Absent	Absent	Absent	Absent
Trifolium dubium	Lesser trefoil	I	3	Rare	3	Absent	Absent	Absent	Absent
Rumex acetosella	Sheep’s sorrel	I	3	Rare	3	Absent	Absent	Absent	Absent
Galega officinalis	Goats rue	I	3	Rare	Absent	3	Absent	Absent	Absent
Agrostis stolonifera	Creeping bent	I	3	Rare	Absent	3	Absent	Absent	Absent
Taraxacum officinale agg.	Dandelion	I	3	Rare	Absent	3	Absent	Absent	Absent
Poa trivialis	Rough meadow-grass	I	3	Rare	Absent	3	Absent	Absent	Absent
Veronica arvensis	Wall speedwell	I	3	Rare	Absent	3	Absent	Absent	Absent
Equisetum sp.	Horsetail species	I	3	Rare	Absent	Absent	3	Absent	Absent
Silene latifolia	White campion	I	3	Rare	Absent	Absent	Absent	3	Absent
Achillea millefolium	Yarrow	I	3	Rare	Absent	Absent	Absent	3	Absent
Hypericum perforatum	Perforate St John's-wort	I	3	Rare	Absent	Absent	Absent	Absent	3

Table A8.2.52 – Quadrat data for community 42-03 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Poa pratensis	Smooth meadow-grass	V	5-6	Abundant	5	6	5	6	5
Vulpia myuros	Rat's-tail fescue	V	2-6	Frequent	4	4	4	2	6
Festuca ovina / F. rubra	Sheep's / red fescue	III	4	Frequent	Absent	4	4	4	Absent
Holcus lanatus	Yorkshire-fog	III	2-4	Frequent	2	2	4	Absent	Absent
Bromus hordeaceus	Soft-brome	III	2-4	Frequent	Absent	2	Absent	4	2
Agrostis capillaris	Common bent	III	2-4	Frequent	2	Absent	4	4	Absent
Plantago lanceolata	Ribwort plantain	III	2-4	Frequent	2	Absent	Absent	3	4
Trifolium arvense	Hare’s-foot clover	III	2-3	Frequent	3	Absent	Absent	3	2
Cirsium vulgare	Spear thistle	III	1-4	Frequent	Absent	1	4	1	Absent
Centaurium erythraea	Common centaury	II	5-7	Frequent	5	7	Absent	Absent	Absent
Moss	Moss	II	4-5	Frequent	4	5	Absent	Absent	Absent
Phleum bertolonii	Smaller cat's-tail	II	4	Frequent	Absent	Absent	4	4	Absent
Filago germanica	Common cudweed	II	3	Frequent	Absent	Absent	Absent	3	3
Leontodon saxatilis	Lesser hawkbit	II	2	Frequent	2	Absent	Absent	2	Absent
Jacobaea vulgaris	Common ragwort	II	1-2	Frequent	2	Absent	Absent	1	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Galega officinalis	Goat's-rue	II	1-4	Frequent	Absent	4	1	Absent	Absent
Rumex acetosella	Sheep’s sorrel	II	3	Occasional	3	Absent	Absent	3	Absent
Anthoxanthum odoratum	Sweet vernal-grass	I	7	Occasional	7	Absent	Absent	Absent	Absent
Agrostis stolonifera	Creeping bent	I	6	Occasional	Absent	Absent	6	Absent	Absent
Vulpia bromoides	Squirreltail fescue	I	4	Occasional	Absent	Absent	Absent	Absent	4
Achillea millefolium	Yarrow	I	4	Occasional	Absent	Absent	Absent	4	Absent
Dactylis glomerata	Cock's-foot	I	2	Frequent	Absent	2	Absent	Absent	Absent
Odontites vernus	Red bartsia	I	2	Frequent	Absent	Absent	Absent	2	Absent
Arrhenatherum elatius	False oat-grass	N/A	N/A	Frequent	Absent	Absent	Absent	Absent	Absent
Anisantha sterilis	Barren brome	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Lolium perenne	Perennial rye-grass	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Trisetum flavescens	Yellow oat-grass	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Phleum pratense	Timothy	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Potentilla reptans	Creeping cinquefoil	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Hypericum perforatum	Perforate St John's-wort	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Artemisia vulgaris	Mugwort	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Urtica dioica	Common nettle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Agrimonia eupatoria	Agrimony	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Cirsium arvense	Creeping thistle	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Medicago lupulina	Black medick	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Lotus corniculatus	Common bird's-foot-trefoil	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Echium vulgare	Viper's-bugloss	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Helminthotheca echiodes	Bristly oxtongue	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Silene latifolia	White campion	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Dipsacus fullonum	Wild teasel	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Torilis japonica	Upright hedge-parsley	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Hypochaeris radicata	Cat's-ear	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Rumex obtusifolius	Broad-leaved dock	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Daucus carota subsp. carota	Wild carrot	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Prunella vulgaris	Selfheal	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Lathyrus pratensis	Meadow vetchling	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Centaurea nigra	Common knapweed	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Cerastium fontanum	Common mouse-ear	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Jacobaea erucifolia	Hoary ragwort	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Arctium lappa	Greater burdock	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Trifolium campestre	Hop trefoil	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Picris hieracioides	Hawkweed oxtongue	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Medicago sativa subsp. sativa	Lucerne	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Sisymbrium officinale	Hedge mustard	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Rosa arvensis	Field-rose	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Lotus tenuis	Narrow-leaved bird's-foot-trefoil	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Conium maculatum	Hemlock	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Senecio inaequidens	Narrow-leaved ragwort	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Table A8.2.53 – Quadrat data for community 42-05 – short herbaceous vegetation (2 x 2 m)

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Festuca sp.	Fescue species	V	5-9	Abundant	5	5	6	9	8
Agrostis capillaris	Common bent	V	4-7	Abundant	4	6	6	7	7
Plantago lanceolata	Ribwort plantain	V	2-5	Abundant	4	5	2	4	2
Trifolium arvense	Hare's-foot clover	V	1-4	Abundant	4	3	2	4	1
Achillea millefolium	Yarrow	V	2-5	Frequent	3	3	2	3	5
Rumex acetosella	Sheep's sorrel	IV	1-2	Frequent	1	1	2	Absent	2
Holcus lanatus	Yorkshire-fog	III	4-8	Abundant	6	8	Absent	4	Absent
Poa pratensis	Smooth meadow-grass	II	4-7	Frequent	7	Absent	4	Absent	Absent
Arrhenatherum elatius	False oat-grass	II	2-7	Frequent	Absent	2	7	Absent	Absent
Moss	Moss	II	4	Frequent	Absent	4	4	Absent	Absent
Lichen	Lichen	II	1-4	Frequent	Absent	4	1	Absent	Absent
Cynosurus cristatus	Crested dog's-tail	II	2	Occasional	Absent	Absent	Absent	2	2
Anthoxanthum odoratum	Sweet vernal-grass	I	4	Occasional	Absent	Absent	4	Absent	Absent
Leontodon saxatilis	Lesser hawkbit	I	2	Occasional	Absent	Absent	Absent	2	Absent
Trifolium campestre	Hop trefoil	I	2	Frequent	2	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Centaurea nigra	Common knapweed	I	2	Occasional	Absent	Absent	Absent	Absent	2
Daucus carota subsp. carota	Wild carrot	I	2	Occasional	Absent	Absent	Absent	Absent	2
Hypochaeris radicata	Cat's-ear	I	2	Frequent	Absent	2	Absent	Absent	Absent
Leontodon autumnalis	Autumn hawkbit	I	2	Occasional	Absent	Absent	Absent	2	Absent
Centaurium erythraea	Common centaury	I	1	Occasional	1	Absent	Absent	Absent	Absent
Cirsium vulgare	Spear thistle	I	1	Frequent	1	Absent	Absent	Absent	Absent
Picris hieracioides	Hawkweed oxtongue	I	1	Occasional	Absent	Absent	1	Absent	Absent
Linaria vulgaris	Common toadflax	I	1	Occasional	Absent	Absent	1	Absent	Absent
Filago germanica	Common cudweed	I	1	Occasional	Absent	Absent	1	Absent	Absent
Taraxacum officinale agg.	Dandelion	I	1	Occasional	Absent	Absent	1	Absent	Absent
Crepis capillaris	Smooth hawk's-beard	I	1	Occasional	Absent	Absent	Absent	1	Absent
Jacobaea vulgaris	Common ragwort	N/A	N/A	Frequent	Absent	Absent	Absent	Absent	Absent
Phleum bertolonii	Smaller cat's-tail	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent

Scientific Name	Common Name	Frequency	Domin Range	DAFOR	Quadrat 1	Quadrat 2	Quadrat 3	Quadrat 4	Quadrat 5
Pilosella officinarum	Mouse-ear-hawkweed	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Reseda luteola	Weld	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Cerastium fontanum	Common mouse-ear	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Malva moschata	Musk-mallow	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Galium verum	Lady’s bedstraw	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Leucanthemum vulgare	Oxeye daisy	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Senecio inaequidens	Narrow-leaved ragwort	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Helminthotheca echiodes	Bristly oxtongue	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Medicago lupulina	Black medick	N/A	N/A	Occasional	Absent	Absent	Absent	Absent	Absent
Erodium cicutarium	Common stork's-bill	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent
Knautia arvensis	Field scabious	N/A	N/A	Rare	Absent	Absent	Absent	Absent	Absent

Annex F. Photographs

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Annex F
Photographs

Photograph A8.2.1 Project Section A, Community 03-01. W8d woodland

Photograph A8.2.2 Project Section A, Community 07-01. W8d woodland

Photograph A8.2.3 Project Section A, Community 12-01. MG13 grassland and ditch

Photograph A8.2.4 Project Section A, Community 12-02. S6 swamp

Photograph A8.2.5 Project Section A, Community 12-03. MG13 grassland

Photograph A8.2.6 Project Section A, Community 12-04. S6 swamp

Photograph A8.2.7 Project Section B, Community 12-05. W10d woodland

Photograph A8.2.8 Project Section B, Community 12-06. MG13 grassland

Photograph A8.2.9 Project Section B, Community 13-01. Damp neutral grassland no definitive NVC

Photograph A8.2.10 Project Section B, Community 14-01. W8a woodland

Photograph A8.2.11 Project Section B, Community 14-02 Damp neutral grassland no definitive NVC

Photograph A8.2.12 Project Section B, Community 17-01. W8f woodland canopy

Photograph A8.2.13 Project Section B, Community 17-01. W8f woodland understorey and ground layer

Photograph A8.2.14 Project Section B, Community 18-01: MG1a grassland

Photograph A8.2.15 Project Section C, Community 19-01. Transition between damp grassland and mire/swamp community

Photograph A8.2.16 Project Section C, Community 19-02. Transition between S6 and S7 swamp

Photograph A8.2.17 Project Section C, Community 19-03. W6a woodland

Photograph A8.2.18 Project Section C, Community 22-01. W10d woodland canopy

Photograph A8.2.19 Project Section C, Community 22-01. W10d woodland ground flora

Photograph A8.2.20 Project Section C, Community 23-01. S6 swamp

Photograph A8.2.21 Project Section C, Community 24-01. S6 swamp. Wet area

Photograph A8.2.22 Project Section C, Community 24-01. S6 swamp. Drying area

Photograph A8.2.23 Project Section C, Community 26-01. S14c swamp

Photograph A8.2.24 Project Section C, Community 26-02. U1c grassland

Photograph A8.2.25 Project Section C, Community 26-03. W6a woodland

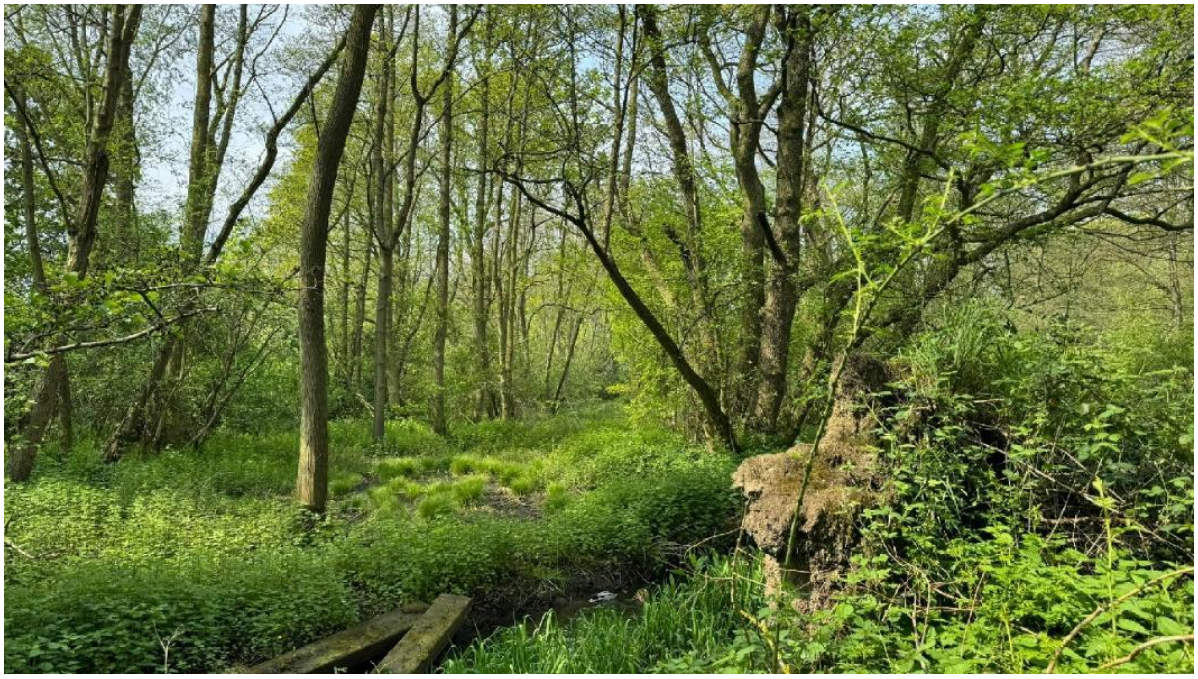
Photograph A8.2.26 Project Section C, Community 26-04. Neutral semi-improved grassland

Photograph A8.2.27 Project Section C, Community 26-05. U1c grassland

Photograph A8.2.28 Project Section C, Community 27-01. U1b grassland

Photograph A8.2.29 Project Section C, Community 28-01. MG1c grassland

Photograph A8.2.30 Project Section C, Community 29-01. Plantation woodland



Photograph A8.2.31 Project Section C, Community 29-02. W6a woodland

Photograph A8.2.32 Project Section D, Community 31-01. W6d woodland

Photograph A8.2.33 Project Section D, Community 32-01. MG5b grassland

Photograph A8.2.34 Project Section F, Community 36-01. W10a woodland

Photograph A8.2.35 Project Section G, Community 39-01. W10a woodland

Photograph A8.2.36 Project Section G, Community 40-01. MG1a grassland

Photograph A8.2.37 Project Section H, Community 41-01. W22a scrub

Photograph A8.2.38 Project Section H, Community 42-01. Transitional habitat open vegetation to grassland

Photograph A8.2.39 Project Section H, Community 42-02. Transitional habitat open vegetation to grassland

Photograph A8.2.40 Project Section H, Community 42-03. U1d grassland

Photograph A8.2.41 Project Section H, Community 42-04. MG1b grassland

Photograph A8.2.42 Project Section H, Community 42-05. U1b grassland. Area of short sward

Photograph A8.2.43 Project Section H, Community 42-05. U1b grassland. Area succeeding to tall grassland

Annex G. Protected / Notable Plant Species Recorded During Surveys

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Annex G
Protected / Notable Plant Species Recorded During Surveys

Table A8.2.54 – Protected/Notable Plant Species Recorded During Surveys

Ref.	Scientific Name	Common Name	Population Size	Comments	Designated Status
N01	*Ophioglossum vulgatum*	Adder's-tongue	10	N/A	Essex Red Data List
N02	*Sorbus torminalis*	Wild service-tree	4	One semi mature with other young nearby.	Indicative of ancient woodland
N03	*Salvia verbenaca*	Wild clary	22	N/A	England Red Listed: Near Threatened
N04	*Myosotis ramosissima*	Early forget-me-not	1000+	N/A	Essex Red Data List
N05	*Ophrys apifera*	Bee orchid	30+ observed, likely more	Sparsely spaced out in this location.	Charismatic species
N06	*Lotus maritimus*	Dragon's-teeth	5	Not native (introduced species) but very rare in Essex.	Introduced species
N07	*Anacamptis pyramidalis*	Pyramidal orchid	~20	N/A	Essex Red Data List
N08	*Ophrys apifera*	Bee orchid	20+	N/A	Charismatic species
N09	*Anacamptis pyramidalis*	Pyramidal orchid	3+	N/A	Essex Red Data List
N10	*Anacamptis pyramidalis*	Pyramidal orchid	10	10+ found within 2 m of each other.	Essex Red Data List
N11	*Anacamptis pyramidalis*	Pyramidal orchid	2	N/A	Essex Red Data List

Ref.	Scientific Name	Common Name	Population Size	Comments	Designated Status
N12	*Anacamptis pyramidalis*	Pyramidal orchid	1	N/A	Essex Red Data List
N13	*Polypogon monspeliensis*	Annual beard-grass	5-10	Listed on Essex rare plant register.	Nationally Scarce Essex Red Data List
N14	*Parapholis incurva*	Curved hard-grass	Patches of this grass in this area	N/A	Nationally Scarce Essex Red Data List
N15	*Salicornia sp.*	Glasswort species	1 patch 0.5 m x 0.5 m	As not in full flower it is difficult to ID glasswort species. Only glasswort species that is rare in Essex is the one-flowered glasswort, common glasswort	Nationally Scarce (perennial glasswort and one-flowered glasswort) Essex Red Data List (one-flowered glasswort)

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