Chleansaid Wind Farm 132 kV OHL Connection

Environmental Appraisal (EA) Report

Appendix 7.1: Habitats Technical Appendix

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TRANSMISSION

CONTENTS

LIST OF ABBREVIATIONS

AWI	Ancient Woodland Inventory
BNG	Biodiversity Net Gain
BAP	Biodiversity Action Plan
CIEEM	Chartered Institute of Ecology and Environmental Management
EA	Environmental Appraisal
EIA	Environmental Impact Assessment
GIS	Geographical Information System
HCA	Habitat Condition Assessment
LNCS	Local Nature Conservation Site
LNR	Local Nature Reserve
LoD	Limit of Deviation
MMU	Minimum Mapping Unit
NE	Natural England
NWSS	Native Woodland Survey of Scotland
OHL	Overhead Line
OS	Ordnance Survey
SAC	Special Area of Conservation
SBL	Scottish Biodiversity List
SSSI	Site of Special Scientific Interest
SPA	Special Protection Area
UKHab	UK Habitat Classification

EXECUTIVE SUMMARY

Baseline UK Habitat (UKHab) Classification, Habitat Condition Assessment and National Vegetation Classification (NVC) surveys were undertaken within the proximity of a new proposed overhead line (OHL) running between Chleansaid Windfarm 132 kV Substation to Dalchork Substation near Lairg, in the Sutherland region of the Highlands, Scotland (hereafter the 'Proposed Development'). The site of the Proposed Development encompasses land required to accommodate the proposed OHL alignment and temporary access tracks and construction areas (the Site).

Surveys were completed along the Proposed Alignment plus an additional 250 m buffer, forming a 500 m corridor hereafter referred to as the "UK Habitat/NVC Survey Area" in April 2023 (UKHab Survey) and May to July 2024 (NVC Survey). The purpose of the study was to identify the current habitat baseline and inform the Environmental Impact Assessment for the Proposed Development.

No non-ornithological nationally designated sites were recorded within 2 km of the Proposed Development. Within a 10 km buffer, three non-ornithological internationally designated sites were recorded, the closest of which being Caithness and Sutherland Peatlands Special Area of Conservation and Caithness and Sutherland Peatlands Ramsar, which both lie 3.66 km to the south-west.

The Proposed Development also passes through various woodlands listed on the Native Woodland Survey of Scotland. Two areas listed on the Ancient Woodland Inventory were recorded within a 2 km buffer, outside of the Proposed Development.

The Proposed Development lies within a hilly landscape, containing conifer plantation interspersed with upland habitat types on exposed hillsides. Sensitive habitats recorded within the UK Habitat Survey Area include Wet heathland with cross-leaved heath; upland (h1b6) (H4010) which is classified as an Annex I habitat under the EU Habitats Directive. Several Scottish Biodiversity List (SBL) priority habitats also listed as Highland Nature Biodiversity Action Plan habitats were recorded within UK Habitat Survey Area including; Upland heathland (h1b), Other Scot's Pine woodland (w2b), Wet woodland (w1d), Degraded blanket bog (f1a6) and Purple moor grass and rush pastures (f2b).

Numerous burns and rivers flow through the valleys of the Proposed Development. Larger rivers recorded within the Proposed Development include Feith Osdail to the south, and Allt Chaiseagail to the north.

During the NVC survey seven mire communities (M4, M6c, M17, M18a, M19, M20 and M25), one wet heath community (M15) and one dry heath community (H9) were identified within 250 m of the Proposed Alignment. Nine areas were assessed as Good, using the criteria within the NatureScot Priority Peatlands template.

One area was assessed as being of Potential National Interest using the criteria within the NatureScot Priority Peatlands template. This was Area 81, an area of M18a *Erica tetralix-Sphagnum papillosum* raised and blanket mire-*Sphagnum medium/divinum-Andromeda polifolia* sub-community. It was assessed as Potential National Interest due to *Sphagnum austinii* being recorded during NVC survey. Area 81, however, is located approximately 50 m north of the Proposed Alignment, with a road separating it from the location of the poles. Due to the road being raised above and forming a barrier to Area 81 from the works area it is assumed that this area will not be directly affected.

The only one of the ten Good/Potential National Interest Priority Peatland areas that will be directly affected is an area of M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire. It was assessed as Good due to having vegetation capable of forming peat. This area is beneath the alignment for a distance of approximately 250 m, towards the north of the Proposed Development.

This document sets out the methods used, limitations and the results of surveys which are suitable for use as the baseline for Environmental Appraisal (EA)[1]. All limitations and assumptions are included within this report. The

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Environmental Appraisal report will consider potential impacts on habitats identified along the Proposed Development.

1. INTRODUCTION

1.1 Project Background

1.1.1 WSP UK Ltd ('WSP') was commissioned by Scottish and Southern Electricity Networks Transmission (hereafter the 'Applicant') to undertake a desk review and baseline habitat surveys to inform the Environmental Appraisal (EA) for a new 132 kV twin circuit overhead line (OHL) running between Chleansaid Windfarm 132 kV Substation to Dalchork Substation near Lairg, in the Sutherland region of the Highlands, Scotland (hereafter the 'Proposed Development').

1.2 Scope of Survey

1.2.1 Baseline habitat surveys were undertaken in April 2023 during Stage 2 Alignment[2] to inform the optioneering of the Proposed Development.

1.2.2 Surveys were undertaken of three proposed Alignment Options plus a 100 m Limit of Deviation (LoD) plus an additional 150 m buffer either side of the centreline, to form a 500 m survey corridor for each Alignment Option under consideration at the time. Based on the results of Stage 2 Alignment surveys, the preferred alignment option was taken forward (hereafter the "Proposed Alignment") and is the focus of this report.

1.2.3 The Proposed Development comprises of the Proposed Alignment, plus a LoD of 100 m either side of the centreline. Note the LoD of 100 m was modified in some areas to meet the Proposed Development's requirements due to the presence of specific environmental constraints (e.g., scheduled monuments).

1.2.4 Following consultation with NatureScot, more detailed National Vegetation Classification (NVC) surveys were undertaken in spring/summer 2024 to assign NVC community classifications to habitats within 250 m either side of the centreline of the Proposed Alignment.

1.2.5 The report presents the methodology and results of UK Habitat Classification (UKHab) and Habitat Condition Assessment (HCA) surveys undertaken within the Proposed Development, plus a 150 m buffer ('hereafter the 'UK Habitat Survey Area'). The location of the Proposed Development and UK Habitat Survey Area is shown in **Annex A, Figure 7.1.1: UKHab Habitat Results.**

1.2.6 The report also presents the methodology and results of the NVC survey and provides information to help assess the effects of the Proposed Development on peatland, carbon rich soils and Priority Peatland habitat. The location of the Proposed Development and NVC Survey Area is shown in **Annex A, Figure 7.1.4: NVC Results.**

1.3 Objectives

1.3.1 The purpose of the surveys was to provide a baseline description of the UK Habitat and NVC Survey Area and habitat distribution relative to the Proposed Development with particular regard to:

- mapping the extent of habitats using UKHab methodology;
- mapping the extent of NVC communities using NVC methodology:
- identifying the potential presence of Annex I habitat under the European Union Habitats Directive[3];
- identifying the potential presence of Scottish Biodiversity List (SBL) Priority habitats; and
- identifying the potential presence of Priority Peatlands[4] and potential effects from the Proposed Development, in accordance with National Planning Framework 4 (NPF4) 2023[5].

[2] WSP (2023). SSEN Transmission. Chleansaid Windfarm Connection. Alignment Selection Study Report

[3] The Habitats Directive - European Commission (europa.eu)

[4] NatureScot (2023) Advising on peatland, carbon-rich soils and priority peatland habitats in development management. Available at: https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management#Defining+Carbon-Rich+Soil+and+Priority+Peatland+Habitat [Accessed August 2024]

[5] National Planning Framework 4 - gov.scot (www.gov.scot)

2. METHODOLOGY

2.1 Overview

2.1.1 Baseline habitat surveys were undertaken in April 2023. Surveys were led by a WSP Principal Ecologist with over seven years' experience and is 'capable' in habitat identification and evaluation of sites containing similar habitat types and species, as per the Chartered Institute of Ecology and Environmental Management (CIEEM)competency framework[6].

2.1.2 NVC surveys were undertaken in May, June and July 2024. Surveys were conducted by a WSP Senior Ecologist who is a full member of CIEEM, with over 18 years' experience within ecological consultancy and holds a Level 5 Botanical Society of Britain and Ireland (BSBI) Field Identification Skills Certificate (FISC)[7]. The surveyor has also previously held the post of county bryophyte recorder for Cheshire (vice-county 58) and is a member of the BSBI, the British Bryological Society (BBS) and the British Lichen Society (BLS).

2.2 Desk Study

2.2.1 Initial desk-based studies were undertaken during Stage 1 Route selection[8] and updated during Stage 2 Alignment[2] of the Proposed Development. Desk study results were subsequently updated in October 2023 following the confirmation of the Proposed Alignment. Desk studies were undertaken to identify a broad range of potential constraints and opportunities within the Proposed Alignment and adjacent habitat. This included the following:

- identification of designated sites and other constraints from Geographic Information System (GIS) datasets available from the NatureScot SiteLink[9]; Scotland's Environment Web[10]; Carbon and Peatland Map of Scotland (2016)[11]; Native Woodland Survey of Scotland (NWSS) data[12]; Ancient Woodland Inventory (AWI)[13]; Ordnance Survey (OS) and aerial mapping;
- identification of records of protected species, habitats and other constraints from National Biodiversity Network (NBN) Atlas[14], Buglife Important Invertebrate Areas (IIA)[15] and B-lines[16]; and
- review of The Highland Wide Council Local Development Plan (LDP)[17] and Caithness and Sutherland LDP[18] to identify further environmental constraints and opportunities, such as regional level habitat designations; and
- review of the available survey information and Environmental Impact Assessment (EIA) Report for the Chleansaid Wind Farm[19] and nearby Creag Riabhach OHL EIA Report[20];

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6 CIEEM (2019a). Competency Framework. Available at: https://cieem.net/resource/competency-framework

7 Field Identification Skills Certificate – Botanical Society of Britain & Ireland (bsbi.org)

8 SSEN Transmission (2022): Chleansaid Wind Farm Connection Route Selection Study Report

9 NatureScot (no date). SiteLink [online]. Available at: https://sitelink.nature.scot/home [Accessed October 2023].

10 Scottish Environment Protection Agency (no date). Scotland's Environment Web [online]. Available at: https://map.environment.gov.scot/sewebmap/ [Accessed October 2023].

11 NatureScot (2016) Carbon and Peatland 2016 Map. Available online: https://map.environment.gov.scot/sewebmap/ [Accessed October 2023].

12 Scottish Forestry (2020) Native Woodland Survey of Scotland. Available at: https://open-data-scottishforestry.hub.arcgis.com/datasets/6d27b064fcba471da50c8772ad0162d7_0/explore?location=57.422958%2C-4.591994%2C7.08

13 Scottish Government (2022). Open Data: Ancient Woodland Inventory (Scotland). Available at: https://spatialdata.gov.scot/geonetwork/srv/eng/catalog.search;jsessionid=7A479A27E04C7359A8FE067425E794B1#/metadata/A091F945-F744-4C8F-95B3-A09E6EF6AE33

14 NBN Atlas [online]. Available at: https://nbnatlas.org/ [Accessed October 2023].

15 Buglife (2022). Important Invertebrate Areas. Available at: https://www.buglife.org.uk/our-work/important-invertebrate-areas/

16 Buglife (2022). B-Lines. Available at: https://www.buglife.org.uk/our-work/b-lines/

17 The Highland Wide Local Development Plan (The Highland Council, 2012) [online]. Available at: https://www.highland.gov.uk/info/178/local_and_statutory_development_plans/199/highland-wide_local_development_plan (Accessed October 2023).

18 The Highland Council. (2018) Caithness and Sutherland Local Development Plan [online] Available at: https://www.highland.gov.uk/info/178/local_and_statutory_development_plans/283/caithness_and_sutherland_local_development_plan [Accessed October 2023].

19 Chleansaid Wind Farm, Appendix 8.1: Habitats and Vegetation (2020). ESB Asset Development UK Limited.

20 Creag Riabhach Wind Farm Grid Connection: Environmental Impact Assessment Report (2020), Scottish and Southern Electricity Network (SSEN).

2.3 UK Habitat Classification

2.3.1 Habitats were described and mapped following the Professional Version 1.1 of UKHab using the following documents:

- UKHab User Manual[21] (hereafter 'UKHab User Manual');
- UKHab Field Key[22];
- UKHab Habitat Descriptions Version 1.1[23]; and
- UKHab Classification Basic Edition: Suggested Symbology for Maps[24].

2.3.2 The UKHab Working Group[25] describes UKHab as *"…a unified and comprehensive approach to classifying habitats, designed to provide a simple and robust approach to survey and monitoring*". The dominant plant species are recorded, and habitats are classified according to their vegetation types. UKHab system comprises of a principal hierarchy (the Primary Habitats) and non-hierarchical Secondary Codes. Primary Habitats include:

- Level 1: major ecosystem categories;
- Level 2: ecosystem types;
- Level 3: broad habitat types, corresponding with UK Biodiversity Action Plan Broad Habitats and closely to the European Nature Information System;
- Level 4: more defined habitats, including Priority Habitats[26]: and
- Level 5: further defined habitats, including Annex I Habitats[27] (level 5).

2.3.3 Secondary Codes can then be used to provide more information on a habitat from the following categories:

- mosaic habitats;
- habitat complexes;
- origin of habitat;
- management;
- land use;
- environmental qualifiers;
- hydrological regime; and
- green infrastructure.

2.3.4 A single Primary Habitat is assigned to each polygon, line or point feature with generally a maximum of six Secondary Codes used. Lowercase letters are used, with the levels 2 to 5 shown by the alphanumeric code and no commas are used between secondary codes as per the UKHab User Manual. Habitats are described by the Primary Habitat first (e.g. **w1h5** 'other woodland; mixed; mainly broadleaved') with Secondary Codes following (e.g. **w1h5 36 57** 'other woodland; mixed; mainly broadleaved' that is plantation with young trees - self set).

2.3.5 Point features were used for Primary Habitats if these were of conservation interest and too small to map as an area. For this survey, where possible, level 5 Primary Habitat codes were used for habitats. Target notes on habitat descriptions were taken for each habitat type. The scientific names for vascular (flowering) plant species follow

[21] UKHab Working Group (2018a). UKHab User Manual. UKHab Working Group (UKHab Ltd), Stockport, Cheshire. Available at: https://ecountability.co.uk/ukhabworkinggroup-ukhab/

[22] UKHab Working Group (2018b). UK Habitat Classification Field Key. UKHab Working Group (UKHab Ltd), Stockport, Cheshire. Available at: https://ecountability.co.uk/ukhabworkinggroup-ukhab/

[23] UKHab Working Group (2020a). UKHab Habitat Descriptions Version 1.1 UKHab Working Group (UKHab Ltd), Stockport, Cheshire. Available at: https://ecountability.co.uk/ukhabworkinggroup-ukhab/

[24] UKHab Working Group (2020b). UKHab Basic Edition: Suggested Symbology for Maps. UKHab Working Group (UKHab Ltd), Stockport, Cheshire. Available at: https://ecountability.co.uk/ukhabworkinggroup-ukhab/

[25] UKHab (no date). The UK Habitat Classification System/ Available at: https://ukhab.org/

[26] UK BAP (2011). UK Biodiversity Action Plan (UK BAP) priority habitats. BRIG (ed. Ant Maddock). [online] Available at: https://data.jncc.gov.uk/data/2728792c-c8c6-4b8c-9ccd-a908cb0f1432/UKBAP-PriorityHabitatDescriptions-Rev-2011.pdf

[27] European Commission (1992). Council Directive 92/43/EEC (as amended), Annex I. Available at: https://www.legislation.gov.uk/eudr/1992/43/contents

those in the New Flora of the British Isles[28]. Nomenclature for bryophytes follows Mosses and Liverworts of Britain and Ireland[29]. Relative plant species abundance was estimated using the DAFOR[30] scale. These are presented in **Annex B** alongside a table of all secondary codes recorded within the UK Habitat Survey Area.

2.3.6 Habitats were recorded in the field using GIS enabled software. Once recorded, these habitats were later quality assured utilising GIS desktop software. Habitat symbology was ascribed following UKHab Basic Edition: Suggested Symbology for Maps[24]; any habitats not included within the suggested symbology were given an alternative symbol. Each feature with a Secondary Code was given a target note number which is displayed on the map.

2.3.7 The metadata is summarised in **Table 2-1** for the survey to accompany the GIS shapefile output.

Table 2-1: Summary of UKHab Metadata

Metadata heading	Survey metadata
Scope and purpose of the survey	Baseline UKHab survey to inform EA and Proposed Alignment.
Area surveyed	UK Habitat Survey Area comprising of the Proposed Alignment plus 100 m limit of deviation plus 150 m buffer (to create a 500 m corridor).
Edition of UKHab Used	UKHab Professional V1.1.
The Level of UKHab Primary Hierarchy used	UK Habitat Survey Area = Level 5 (as far as reasonable possible given time of year and scale of UK Habitat Survey Area)
List of secondary code groups recorded	UK Habitat Survey Area = all Secondary Code groups except Green Infrastructure
Scoped out	Plantation coniferous woodland (w2c) assume poor condition; urban areas (u1) assume Poor condition; modified grassland (g4) assume poor condition; and crops (c1) assume poor condition.
Map Projection and unit	British National Grid in metres.
Organisation undertaking the survey	WSP UK Ltd

2.3.8 Following data collection, habitats were assessed for their potential to be SBL habitat, Highland Wide Council LPD or Caithness and Sutherland LBAP priority habitats.

2.3.9 In addition, a high-level assessment of recorded habitats potential to indicate Ground Water Dependant Terrestrial Ecosystems (GWDTE) was undertaken, following Scottish Environmental Protection Agency (SEPA) Guidance (2017)[31].

2.4 Habitat Condition Assessment

2.4.1 Concurrently with the UKHab survey, WSP undertook an HCA of the UK Habitat Survey Area. The HCA was undertaken of Primary Habitats following Natural England Biodiversity Metric V3.1[32]. The results of the HCA will be reported within the Proposed Development's separate Biodiversity Net Gain Report.

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

[29] Atherton, I., Bosanquet, S., Lawley, M. eds. (2010). Mosses and Liverworts of the British Isles: a field guide. British Bryological Society.

[30] The DAFOR scale has been used to estimate the frequency and cover of the different plant species as follows: Dominant (D), Abundant (A), Frequent (F), Occasional (O), Rare (R), The term 'Locally' (L) is also used where the frequency and distribution of a species are patchy and 'Edge' (E) is also used where a species only occurs on the edge of a habitat type.

[31] Scottish Environmental Protection Agency (SEPA) Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems. Online at: https://www.sepa.org.uk/media/144266/lups-gu31-guidance-on-assessing-the-impacts-of-development-proposals-on-groundwater-abstractions.pdf [Accessed January 2024]

[32] Natural England (2021). The Biodiversity Metric 3.1. Online at: http://publications.naturalengland.org.uk/publication/6049804846366720 [Accessed October 2023]

2.5 NVC Survey

2.5.1 The NVC survey was completed between April and July 2024 following industry standard guidelines[33], classifying communities in accordance with the NVC system and published floristic tables[34]. Dichotomous keys within Rodwell *et al.* 1991[35] and Averis *et al.* 2004[36] and dendrogram keys within Elkington *et al.* 2001[37] were used during the classification of heathland and mire communities.

2.5.2 The predefined habitat parcels were surveyed qualitatively to record dominant and constant species, sub-dominant species and other species present. Quadrat sampling was not applied as it is not always necessary if vegetation types can be reliably identified in the field using sufficient qualitative data where most NVC communities and sub-communities are defined by inter-stand frequency, not by the abundance of the constituent species. Species frequency (using the DAFOR[38] scale) was recorded for the main indicator species within each targeted survey area. Furthermore, qualitative information can be vital for understanding the dynamics and trends in vegetation patterns. Post-survey, any alterations to the predefined community boundaries were made in ArcGIS software.

2.5.3 Names of vascular plants follow Stace (2019)[26] with bryophytes mostly following Blockeel *et al.* (2021)[39] and lichens following Smith *et al.* (2009)[40]. It is normal practice within ecological reports to give the common name and Latin name of plants for the first time they are used in a report and any subsequent references to the species then just use the common name. Although bryophytes (mosses liverworts and hornworts) do have official English common names, these are very rarely used in scientific literature and many English names have only been recently coined to comply with legislation requiring lists of species of conservation concern to have common names. The vast majority of lichen species do not have common names. Therefore, in this report vascular plants will be referred to by their common names after first reference but bryophytes and lichens will only use Latin names.

2.6 Priority Peatlands

2.6.1 One of the main aims of the NVC survey was to provide information on the potential presence of Priority Peatlands. The NPF 4[5] recognises that significant weight should be given to address both the global climate and nature crises when considering all development proposals (Policy 1). Proposals must also protect, conserve, restore and enhance biodiversity (Policy 3). In addition, the intent of Policy 5 is to protect carbon-rich soils, restore peatlands and minimise disturbance to soils from development.

2.6.2 NPF4 Policy 5d, requires that '*where development on peatland, carbon-rich soils or priority peatland is proposed, a detailed site-specific assessment will be required*'. This should include peat depth surveys (initial, detailed and additional information), Peat Landslide Hazard Risk Assessment (PLHRA), and detailed habitat surveys (NVC), including an assessment of condition. The assessments and surveys should direct the project design and siting to ensure compliance with the mitigation hierarchy of:

- **Avoid – by removing the impact at the outset.** Development should first seek to avoid areas of peatland, carbon-rich soils and priority peatland habitat;
- **Minimise – by reducing the impact.** Direct and indirect impacts of development should be limited to the minimum;
- **Restore – by repairing damaged habitats.** Any habitats that are damaged by the proposal (whether direct or indirect impacts) should be restored as far as is possible; and
- **Offset – by compensating for residual impact that remains, with preference to on-site over off-site measures.** Effective restoration and management of degraded equivalent habitat should compensate for any losses.

33 Rodwell, J. S. (2006). NVC Users' Handbook.

34 Rodwell, J. S. (Ed), et al. (1991 – 2000). British Plant Communities (5 volumes).

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

36 Averis, A.M., Averis, A.B.G., Birks, H.J.B., Horsfield, D., Thompson, D.B.A., Yeo, M.J.M. (2004) *An illustrated Guide to British Upland Vegetation.* Joint Nature Conservation Committee.

37 Elkington, T., Dayton, N., Jackson, D.L., Strachan, I.M. (2001) *National Vegetation Classification: Field Guide to Mires and Heaths.* Joint Nature Conservation Committee.

38 Relative abundance within the targeted survey area expressed as D-Dominant, A-Abundant, F-Frequent, O-Occasional, R-Rare.

37 Blockeel, T.L., Hodgetts, N.G., Pilkington, S.L., Pescott, O.L. (2021) *A Census catalogue of British and Irish Bryophtes 2021.* British Bryological Society.

40 Smith, C.W., Aptroot, A., Coppins, B.J., Fletcher, A., Gilbert, O.L., James, P.W., Wolseley, P.A. (2009) *The Lichens of Great Britain and Ireland.* British Lichen Society.

2.6.3 Peatlands are areas of land containing peat which support a variety of habitats. Peatlands in Scotland are dominated by blanket bog and montane bog (blanket bog above 600 m) with some upland flushes, fens and swamps, with raised bogs and fens in the lowlands. Upland peatlands' main source of water and nutrients is from rain and snow. Blanket bog (including montane bog) is identified as a priority habitat in the SBL, the LBAP and Annex I of the 'Habitats Directive'[3]. All peatlands within the Proposed Development are below 250 m.

2.6.4 Peatlands are known to be important for biodiversity and their ability to sequester carbon which slowly accumulates below ground in carbon-rich soils. They can also help alleviate some of the downstream effects of flooding by storing water and reducing peak flows. Peatlands regulate natural processes and are the largest reservoir of long-term accumulated atmospheric carbon.

2.6.5 Peatland can contain a variety of vegetation types, mainly consisting of mixtures of heather *Calluna vulgaris*, hare's-tail cottongrass *Eriophhorum vaginatum*, common cottongrass *Eriophorum angustifolium* and *Sphagnum* moss species. Priority peatland is peatland that corresponds to the below NVC communities and shows evidence of being undisturbed and actively forming peat. The main peatland NVC communities (below 600 m) are listed below, categorised according to NatureScot[4]:

Priority peatland communities that should be completely avoided

- **M1 *Sphagnum auriculatum* bog pool community, M2 *Sphagnum cuspidatum/fallax* bog pool community** and **M3 *Eriophorum angustifolium* bog pool community** which occupy waterlogged depressions, shallow pools and erosion channels on bogs.

Priority peatland communities where impacts have the potential to raise issues of national interest

- **M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire** and **M18 *Erica tetralix-Sphagnum papillosum* raised and blanket mire** are communities of wetter peat and have species such as purple moor-grass *Molinia caerulea*, deergrass *Trichophorum germanicum*, bog myrtle *Myrica gale* and cross-leaved heath *Erica tetralix*. The most characteristic *Sphagnum* species are *S. papillosum* and *S. capillifolium*, and, in M18, *S. magellanicum*[41]. Species such as round-leaved sundew *Drosera rotundifolia*, heath spotted-orchid *Dactylorhiza maculata*, bog asphodel *Narthecium ossifragum* and tormentil *Potentilla erecta* are common in the wetter M17 and M18 bogs.
- **M19 *Calluna vulgaris-Eriophorum vaginatum* blanket mire** occurs on drier substrates and has more bilberry *Vaccinium myrtillus*, cowberry *V. vitis-idaea*, crowberry *Empetrum nigrum* and *Sphagnum capillifolium*. M19 has a darker, tussocky sward and is the more common type of bog at moderate to high altitudes. Species commonly occurring in this community include cloudberry *Rubus chamaemorus* and common cow-wheat *Melampyrum pratense.*

Priority peatland communities that are unlikely to raise issues of national interest

- **M20 *Eriophorum vaginatum* blanket and raised mire** is a degraded form of M19 where the heather and most of the *Sphagnum* spp. have been eliminated by heavy grazing, repeated burning and/or atmospheric pollution.
- **M15 *Trichophorum germainicum-Erica tetralix* wet heath, M16 *Erica tetralix-Sphagnum compactum* wet heath** and **M25 *Molinia caerulea-Potentilla erecta* mire** are classed as blanket bog when they are on deep peat, as they are almost always a replacement for the original bog vegetation following unfavourable management such as burning on too short a rotation followed by heavy grazing.
- Impacts on these communities are unlikely to raise issues of national interest but should still follow the mitigation hierarchy. They could also be important candidates, as well other peatland communities, for measures to offset impacts from development and areas where enhancement measures could be located.

2.6.6 To help assess when a proposal could have a significant effect that NatureScot will consider as raising issues of national interest, an assessment framework based on guidelines for the selection of SSSI for bogs has been

[41] After a detailed study of morphological characters and genetic markers (Hassel *et al.,* 2018*)*, the former *Sphagnum magellanicum* has been split into three separate species. These now include *Sphagnum magellanicum* (only found in Tierra del Fuego on the southern tip of South America), *Sphagnum medium* and *Sphagnum divinum*. Both of the latter taxa are found in Britain and Ireland.

developed, in the form of a template. The template uses criteria including peat depth, type of bog (raised/blanket/montane), NVC communities, size of continuous unit of bog (assessed using area measurements within GIS), presence of vegetation capable of peat forming, presence of drains/cuttings, presence of scrub and presence of indicator species including brown beak-sedge *Rhynchospora fusca, Sphagnum austinii* and *Sphagnum fuscum*[42].

2.6.7 The template is used in this report to assess the NVC communities within 250 m of the Proposed Development, as advised by NatureScot. It should be noted that peatland does not need to meet all the criteria to be considered of a quality and sensitivity sufficient for impacts to raise issues of national interest. The combination of responses to these criteria will inform the assessment by NatureScot. The template, showing the assessment of peatland areas within the Proposed Development, is attached to this report as **Annex C**.

2.7 Notes and Limitations

2.7.1 The results of the UKHab and NVC surveys represent a current evaluation (as opposed to one seeking to describe what the habitats were before any human interference or may become in the future). In the absence of changes in land use, hydrology, or otherwise, and depending on the sensitivity and condition of habitats identified, it is likely that habitat/NVC data remain valid for up to 18 months[43].

2.7.2 No access was available to the Dalchork Substation for survey, however, as the area comprises electrical infrastructure on a concrete base it could be mapped from beyond the boundary fencing and therefore is not considered a limitation to the assessment.

[42] This taxon now includes two species within the British Isles, *S. fuscum* and *S. beothuk.*

[43] CIEEM (2019b). On the Lifespan of Ecological Reports & Surveys [online]. Available at: https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf

3. RESULTS

3.1 Desk Study

Designated Sites

3.1.1 Details of all (non-ornithological) European and internationally designated sites which occur within 10 km of the Proposed Development identified during the desk study exercise are described in **Table 3-1,** listed in order of distance and illustrated in **Annex A, Figure 7.1.2** and **Figure 7.1.3.** There were no non-ornithological national designations identified within 2 km of the Proposed Development.

Table 3-1: Designated Sites

Site Name	Reason for Designation	Distance and direction
European and Internationally Designated Sites (non-ornithological) (10 km)		
Caithness and Sutherland Peatlands Special Area of Conservation (SAC)	Acid peat-stained lakes and ponds Blanket bog Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels Depressions on peat substrates Marsh saxifrage *Saxifraga hirculus* Otter *Lutra lutra*	3.66 km south-west
Caithness and Sutherland Peatlands **Ramsar**	Blanket bog	3.66 km south-west
River Naver SAC	Freshwater pearl mussel *Margaritifera margaritifera* Atlantic salmon *Salmo salar*	9.87 km north

3.1.2 A B-Line[16] priority landscape was recorded within 2 km of the Proposed Development. This is an identified area of landscape connectivity between important habitats for UK pollinators.

3.1.3 The Carbon and peatland 2016 map[11] identified the presence of Class 1, 2 and 3 peatland within the Proposed Development and a 2 km search area.

Ancient Woodland

3.1.4 Numerous pockets of native woodland were identified along the Proposed Development during the desk study exercise. In addition, two areas of Ancient Woodland (of semi-natural origin) listed on the AWI were recorded within 2 km of the Proposed Development, the closest of which is located 1.7 km north.

3.2 UKHab Survey Results

Overview

3.2.1 UK Habitats recorded within the Proposed Development and wider UK Habitat Survey Area are illustrated on **Annex A, Figure 7.1.1** and a species list with scientific names provided in **Annex B, Table B-1**. Secondary Codes recorded are presented in **Annex B, Table B-2.**

3.2.2 The Proposed Development lies within a hilly landscape, containing conifer plantation interspersed with upland habitat types on exposed hillsides, comprised mainly of acid grassland and heathland habitats areas of degraded blanket bog habitat throughout. Sensitive habitats recorded within the Proposed Alignment include Annex I habitat Wet heathland with cross-leaved heath; upland (h1b6) (H4010). Several SBL priority habitats, also listed as Highland Nature Biodiversity Action Plan (BAP) habitats were recorded within the Proposed Development including: Upland

heathland (h1b), Other Scot's Pine woodland (w2b), Wet woodland (w1d), Degraded blanket bog (f1a6) and Purple moor grass and rush pastures (f2b).

Survey Results – Linear Based Habitats

3.2.3 A total of **2** habitats were recorded as liner-based habitats across the UK Habitat Survey Area; Other rivers and streams (r2b) equating to a total length of **6.33 km** and Other hedgerows (h2b) which totalled a length of **0.06 km**. Full descriptions of linear-based habitats are provided below.

Rivers

Other river and steams

3.2.4 This habitat transected the UK Habitat Survey Area throughout and included watercourses such as Feith Osdail to the south, and Allt Chaiseagail to the north, respectively along with numerous other unnamed burns. This habitat also qualifies as a SBL Priority Habitat under Rivers and Highland BAP habitat action plan habitat under Freshwater: Rivers, lakes and ponds.

Hedgerows

Other hedgerows

3.2.5 This habitat was contained to the north of the UK Habitat Survey and consisted of hawthorn dominant planted hedgerows surrounding agricultural buildings and residential houses. This habitat also qualifies as SBL Priority Habitat.

Survey Results – Areas Based Habitats

3.2.6 A total of **15** habitats were recorded as area-based habitats across the UK Habitat Survey Area which are listed in **Table 3-2** below summarised alongside their conservation status and GWDTE potential, along with the total area[44] covered in the UK Habitat Survey Area by each habitat type and percentage of cover[45].

3.2.7 Full descriptions of the area-based habitats recorded within the UK Habitat Survey Area are also provided below, grouped into broad habitat categories and listed in order of their alpha-numeric codes below, as depicted by the UKHab User Manual.

Table 3-2: UKHab Survey results for area-based habitats

UKHab Primary Habitat	Total Area per habitat type (ha)	Percentage cover per habitat type (%)	Conservation Status	GWDTE Potential
g1b6 – Other upland acid grassland	6.75	1.15		Yes
g1c – Bracken	1.48	0.25	-	
g4 – Modified grassland	0.46	0.08	-	
h1b – Upland heathland	142.42	24.36	SBL priority habitat: Upland Heathland Highland BAP habitat action plan: Upland heathland	

[44] Rounded to three decimal places.
[45] Rounded to three decimal places.

UKHab Primary Habitat	Total Area per habitat type (ha)	Percentage cover per habitat type (%)	Conservation Status	GWDTE Potential
h1b6 – Wet heathland with cross-leaved heath; upland (H4010)	8.09	1.38	Annex 1: 4010 Northern Atlantic wet heaths with Erica tetralix SBL priority habitat: Upland Heathland Highland BAP habitat action plan: Upland heathland	Yes
w2c – Other coniferous woodland	190.21	32.54	Highland BAP habitat action plan: Woodland and Forest	
w2b Other Scot's Pine woodland	11.15	1.91	Highland BAP habitat action plan: Woodland and Forest	
w1g7 – Other broadleaved woodland types	0.6	0.1	Highland BAP habitat action plan: Woodland and Forest	
w1d Wet woodland	9.98	1.71	SBL priority habitat: Wet woodland Highland BAP habitat action plan: Woodland and Forest	Yes
f1a6 – Degraded blanket bog	193.88	33.17	SBL priority habitat: Blanket bog Highland BAP habitat action plan: Peatland and Wetland	Yes
f2b – Purple moor grass and rush pastures	2.58	0.44	SBL priority habitat: Purple moor-grass & rush pastures Highland BAP habitat action plan: Peatland and Wetland	Yes
u1b5 - Buildings	0.07	0.01	-	
u1a Open Mosaic Habitats on Previously Developed Land	0.46	0.08	SBL priority habitat: Open mosaic habitats on previously developed land	
u1b Developed land; sealed surface	1.52	0.26	-	
u1c Artificial unvegetated, unsealed surface	14.89	2.55	-	
Total	584.54	100.00		

Grassland

Other upland acid grassland

3.2.8 This habitat was found throughout the UK Habitat Survey Area and was found to be dominated by common bent *Agrostis capillaris*, sweet vernal grass *Anthoxanthum odoratum*, purple moor grass and heath rush *Juncus squarrosus* with abundant mat-grass *Nardus stricta* and bog myrtle. Frequent species recorded within this habitat included soft rush *Juncus effusus* and *Sphagnum* species with occasional gorse *Ulex europaeus*, bell heather *Erica cinerea*, sheep's sorrel *Rumex acetosella*, wavy hair grass *Avenella flexuousa*, broad-leaved dock *Rumex obtusifolius*, rosebay willowherb *Chamaenerion angustifolium* and foxglove *Digitalis purpurea*.

Bracken

3.2.9 This habitat was found in one area of the UK Habitat Survey Area and was found to be dominated by bracken *Pteridium aquilinum*. Frequent species recorded within this habitat include soft rush, broad-leaved dock, and foxglove.

Modified grassland

3.2.10 This habitat was found in two small parcels, north and south of the UK Habitat Survey Area and comprised improved grassland, recently managed through mowing in places. White clover *Trifolium repens* and perennial rye grass *Lolium perenne* were found to dominate this area with abundant cock's-foot *Dactylis glomerata* and creeping buttercup *Ranunculus repens*. Occasional species recorded within this habitat included soft rush, broadleaved dock, sheep's sorrel, crested dogs-tail *Cynosurus cristatus*, Yorkshire fog *Holcus lanatus*, creeping thistle *Cirsium arvense*, sweet vernal grass and daisy *Bellis perennis*.

Heathland and Shrub

Upland heathland

3.2.11 Upland heathland was located throughout the UK Habitat Survey Area. Upland heathland qualifies as a SBL Priority Habitat. This habitat was characterised by dwarf shrubs including abundant heather and occasional bilberry. Heath rush, soft rush and purple moor grass were recorded in abundance. Frequent species recorded include Scot's pine *Pinus sylvestris* saplings, bog myrtle, mat grass and sheep's sorrel. Rosebay willowherb, hare's-tail cotton grass, foxglove, gorse, reindeer lichen *Cladonia* spp., broom *Cytisus scoparius*, cross-leaved heath, *Sphagnum* species, broadleaved dock and wavy hair-grass were recorded occasionally throughout this habitat.

Wet heathland with cross-leaved heath; upland (H4010)

3.2.12 Wet heath contained abundant heather, cross-leaved heath, purple moor grass and bog myrtle. Frequent species recorded include heath rush, *Sphagnum* sp., bog asphodel. Occasional species include soft rush, rosebay willowherb, sharp-flowered rush *Juncus acutiflorus*, common haircap *Polytrichum commune* and broom, Scots pine was found to be scattered throughout this habitat. This habitat qualifies as both a SBL Priority Habitat and Annex I habitat.

Woodland

Other coniferous woodland

3.2.13 This habitat was frequented by Sitka spruce *Picea sitchensis*, larch *Larix decidua*, Douglas fir *Pseudotsuga menziesii* and Scot's pine with occasional birch *Betlua* sp. The understorey was frequented by heather and *Cladonia* lichen with occasional species such as gorse, bog myrtle, cotton grass, purple moor-grass, rosebay willowherb, soft rush, broom, soft rush, curled dock *Rumex crispus*, creeping thistle and Yorkshire fog. Common haircap, willow *Salix* sp. and cross-leaved heath were present but rare in this habitat.

Other Scot's Pine woodland

3.2.14 Scot's pine was found to dominate these woodlands. The understory of this habitat was found to comprise frequent purple moor-grass, bog myrtle and occasional heather, hares-tail cotton grass and *Cladonia* lichen. Other Scot's Pine woodland also qualifies as a SBL Priority Habitat.

Other woodland; broadleaved

3.2.15 Immature planted young trees dominated by birch sp. with occasional willow, alder *Alnus glutinosa* and understorey of occasional rosebay willowherb, mosses, curled dock, soft rush and Yorkshire fog.

Wet woodland

3.2.16 Birch and, willow and alder dominate this habitat along with rare Scot's pine. This habitat was found to contain an understory frequented by heather and mosses and occasional bog myrtle. This habitat qualifies as a SBL Priority Habitat.

Wetland

Degraded Blanket bog

3.2.17 This habitat is located throughout the central and northern portion of the Proposed Development. Degraded blanket bog is a SBL Priority Habitat. This habitat contains abundant cross leaved heath and heather with occasional bog asphodel, hares-tail cottongrass, *Cladonia* lichen and *Sphagnum*. Purple moor grass and young downy birch *Betula pubescens*, were recorded frequently throughout this habitat. Common haircap, willow, gorse, curled dock, creeping buttercup, marsh thistle *Cirsium palustre*, sheep's sorrel, bog pond weed *Potamogeton polygonifolius*, and soft rush were recorded occasionally along with rare gorse, creeping thistle and rosebay willowherb recorded within this habitat.

Purple moor grass and rush pastures

3.2.18 This habitat was located in a small low-lying area bordering a watercourse. This habitat was found to be dominated by soft rush, with abundant purple-moor grass. Wavy hair grass, cross-leaved heath, bog myrtle and tormentil *Potentilla erecta* were recorded occasionally within this habitat. Purple moor grass and rush pastures is a SBL Priority Habitat.

Urban

Buildings

3.2.19 Several buildings were recorded within the UK Habitat Survey Area, with associated gardens, farm buildings, sheds, and driveways.

Open Mosaic Habitats on Previously Developed Land

3.2.20 This habitat was recorded in areas which comprised of a mosaic of grassland and developed land associated with farming infrastructure.

Developed land; sealed surface

3.2.21 This habitat comprised of access tracks associated with both forestry and farming operations within the UK Habitat Survey Area.

Artificial unvegetated, unsealed surface

3.2.22 This habitat consisted of stone and gravel access tracks, in various states of use associated with forestry operations in the area.

3.3 NVC Survey Results

3.3.1 NVC communities recorded within 250 m of the centreline of the Proposed Development are shown and described in **Table 3-2** below and are illustrated in **Annex A, Figure 7.1.4**. NVC communities are named in this report, using the latest plant species names and may therefore differ from those shown in British Plant Communities volumes 1-5, although alpha-numeric codes of all communities are the same as British Plant Communities. Indicative species lists for numbered NVC areas are shown in **Annex B, Table B-3** with numbered NVC areas assessed against NatureScot criteria for Priority Peatlands in **Annex C.**

Table 3-3: NVC Survey results

NVC Community	Numbered Areas (shown on NVC Map-Annex A-Figure 7.1.4)	Total Area of NVC Community (ha)	NVC Community Description	Corresponding UKHab Classification	Priority Peatland (likely NatureScot Status)
M4 *Carex rostrata-Sphagnum fallax* mire	22, 40, 43, 82	1.82	The M4 community was mostly present as small patches within larger expanses of NVC communities such as M15 or M25, but there was one large area of M4 vegetation, towards the north-east of the Proposed Development (Area 82). The M4 community is dominated by bottle sedge *Carex rostrata,* usually with a carpet of *Sphagnum* and/or *Polytrichum commune* below, with few other species present. It is typically found on areas of wet peat, with some lateral water movement or in hollows with stagnant water and is the most acidic type of mire containing bottle sedge (compared to M5 *Carex rostrata-Sphagnum squarrosum* and M8 *Carex rostrata-Sphagnum warnstorfii* mires).	f2c Upland flushes, fens and swamps	No
M6c *Carex echinata-Sphagnum fallax/auriculatum* mire-*Juncus effusus* sub-community	14, 25, 39, 41, 44, 53, 60, 68, 80	7.16	The M6c sub-community was also present as small, scattered patches and was particularly evident along the line of the existing power line, occurring where there were wet hollows and seepage areas. The different M6 sub-communities are defined by the dominant rush or sedge species within the sward, all of which occur over a carpet of *Sphagnum* and/or *Polytrichum commune.* In the case of the M6c sub-community, the dominant species is soft rush but at the Proposed Development site bulbous rush was often more frequent than soft rush. Bulbous rush is a pioneer species which will often quickly colonise bare, disturbed ground, such as beneath the existing power lines. The community overall is species-poor, dominated by rushes/sedges and *Sphagnum* and/or *Polytrichum commune.*	f2c Upland flushes, fens and swamps	No
M15 *Trichophorum germanicum-Erica tetralix* wet heath	17, 18, 19, 22, 26, 27, 109, 112	42.00	The M15 community was most extensive at the northern end of the Proposed Development, around the Dalnessie Estate (Areas 109 and 112), with smaller scatted patches to the north of Dalchork. This community normally occurs on shallow, wet peat and is common throughout north and west Scotland. The typical species include mixtures of heather, cross-leaved heath, deergrass and purple moor-grass, with some tormentil, bog asphodel and common cottongrass. Although they contain many of the same species and often appear similar, the main difference between wet heath communities (M15 and M16) and mire/blanket bog communities (M17, M18, M19 and M20) is the scarcity of hare's-tail cottongrass and *Sphagnum papillosum* within the wet heath communities. *Sphagnum* is often frequent in M15, but usually consists mostly of *S. fallax, S. palustre, S. auriculatum* and *S. capillifolium,* with *S. papillosum* and *S.*	h1b6 Wet heathland with cross-leaved heath; upland (H4010)	No

NVC Community	Numbered Areas (shown on NVC Map-Annex A-Figure 7.1.4)	Total Area of NVC Community (ha)	NVC Community Description	Corresponding UKHab Classification	Priority Peatland (likely NatureScot Status)
			magellanicum s.l. being rare. *S. papillosum* is one of the main peat forming species within the British Isles. Although the M15 habitat is unlikely to be peat forming, it is an Annex I Habitat (Northern Atlantic wet heaths with *Erica tetralix*-H4010).		
M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire	29, 49, 94, 111	18.89	The M17 community was present as small patches within the Proposed Development, with a more extensive area to the north, around the Dalnessie Estate. Although the M15 and M17 towards the north of the Proposed Development are mapped as separate areas on the NVC map, there was small-scale variation across the area, resulting in the formation of a habitat mosaic in some areas, with small, intricate patterns of mixed M15 and M17, too small to be mapped at the chosen mapping scale. The mapping boundaries show the dominant NVC community within the area. M17 can be distinguished from wet heath (M15) by the frequent occurrence of hare's-tail cottongrass and *S. papillosum*. M17 is classed by NatureScot as being a Priority Peatland community where impacts have the potential to raise issues of national interest and is an Annex I Habitat (Blanket Bogs-H7130).	f1a5 Blanket bog (H7130)	Yes
M18a *Erica tetralix-Sphagnum papillosum* raised and blanket mire-*Sphagnum medium/divinum-Andromeda polifolia* sub-community	73, 74, 81, 101	17.08	The M18 community was present as four moderately sized patches, the largest of which occurred at Area 81. This mire community is very similar to the M17 community but in M18 there is usually less deergrass present, and the *Sphagnum* component contains more *S. papillosum* and sometimes *S. magellanicum* s.l., with *S. capillifolium* usually being dominant within M17 mires. Another scarce *Sphagnum* (*S. austinii*) also occurs within M18 mires and is listed as a rare feature within NatureScot criteria used to assess the potential interest of Priority Peatlands. M18 is classed by NatureScot as being a Priority Peatland community where impacts have the potential to raise issues of national interest and is an Annex I Habitat (Blanket Bogs-H7130). During the survey of Area 81, *S. austinii* was found at three locations, towards the eastern end of the area. Locations were: • NC 61582 14170. A single hummock 0.5 m x 0. 5m • NC 61587 14165. Three hummocks within an area of 2 m x 1 m	f1a5 Blanket bog (H7130)	Yes

NVC Community	Numbered Areas (shown on NVC Map-Annex A-Figure 7.1.4)	Total Area of NVC Community (ha)	NVC Community Description	Corresponding UKHab Classification	Priority Peatland (likely NatureScot Status)
			• NC 61593 14161. Two hummocks merged within an area of 1.5 m x 1m. One hummock was covered in *Pleurozium schreberi,* which was removed during the survey.		
M19 *Calluna vulgaris-Eriophorum vaginatum* blanket mire	78, 83,	2.64	The M19 community is dominated by heather and hare's-tail cottongrass, with other constant species including common cottongrass and *Sphagnum capillifolium. S. papillosum* is scarce in this community, compared to M18 and deergrass is far less frequent than in the M17 community. M19 is classed by NatureScot as being a Priority Peatland community where impacts have the potential to raise issues of national interest and is an Annex I Habitat (Blanket Bogs-H7130).	f1a5 Blanket bog (H7130)	Yes
M20 *Eriophorum vaginatum* blanket and raised mire	52	0.20	M20 *Eriophorum vaginatum* blanket and raised mire is dominated by hare's-tail cottongrass, with the only other constant species being common cottongrass. It is very species poor and can sometimes consist almost entirely of hare's-tail cottongrass. It is like a degraded form of M19 where the heather and most of the *Sphagnum* spp. have been eliminated by heavy grazing, repeated burning and/or atmospheric pollution. As such NatureScot, class M20 as a Priority Peatland that is unlikely to raise issues of national interest.	f1a6 Degraded blanket bog	No
M23b *Juncus effusus/acutiflorus-Galium palustre* rush pasture-*Juncus effusus* sub-community	107	0.64	A single area of M23b occurred to the south of Dalnessie. This sub-community (M23b) is dominated by soft rush and occurred within a hollow on farmland, with acid grassland (U4) to the west and neutral grassland (MG6) to the north. This type of habitat is very common on farmland throughout western and northern Britain on ground which is kept wet throughout the year by flushing or seepage.	f2b Purple moor-grass and rush pastures	No
M25 *Molinia caerulea-Potentilla erecta* mire	12, 13, 20, 24, 38, 45, 46, 47, 48, 58, 61, 63,	177.11	The M25 community was the most widespread NVC community across the Proposed Development. It is dominated by tussocks of purple moor-grass, with other frequent species including tormentil, cross-leaved heath and common cottongrass. It is a very species-poor community and often evolves from mire	f1a6 Degraded blanket bog	No

NVC Community	Numbered Areas (shown on NVC Map-Annex A-Figure 7.1.4)	Total Area of NVC Community (ha)	NVC Community Description	Corresponding UKHab Classification	Priority Peatland (likely NatureScot Status)
	64, 66, 69, 70, 71, 72, 79, 84, 87, 90, 92, 97, 98, 102, 103, 104, 110		communities (M17, M18, M19 and M20) which have been subject to unfavourable management. Therefore, the most appropriate UKHab classification is for degraded blanket bog f1a6.		
H9 *Calluna vulgaris-Avenella flexuosa* heath	4, 7, 9, 10, 28, 106	48.90	The areas classified as heathland were mostly very disturbed and consisted predominantly of regenerating heather, patches of wavy hair-grass and conifer seedlings/saplings. Although the areas present are not a particularly good fit with typical H9 heathland, the areas have been assigned to H9 as the H9 community is the most species-poor type of dry heathland vegetation, typically consisting of an even-aged monoculture of *Calluna vulgaris,* on dry peat. Associates include wavy hair-grass and bryophytes growing beneath the heather canopy including *Hypnum jutlandicum, Dicranum scoparium* and *Pohlia nutans*. Dry heaths are normally classed as Annex I Habitat (Dry Heaths: upland-H4030) but these examples may not qualify due to their highly disturbed nature. Some of the areas marked as H9 had patches of dense conifer growth.	h1b5 Dry heaths; upland (H4030)*[46]	No
MG6 *Lolium perenne-Cynosurus cristatus* grassland	108	0.23	A single area of semi-improved neutral grassland was present near to the farm at Dalnessie. The sward was dominated by perennial rye-grass and crested dog's-tail, with abundant white clover and other species typical of intensively manged lowland swards. The area was used as sheep grazing and merged into acid grassland (U4) and a rush-dominated hollow (M23b) to the south.	g3c6 *Lolium-Cynosurus* neutral grassland	No
U4 *Festuca ovina-Agrostis capillaris-Galium saxatile* grassland	3, 6, 8, 88, 105	2.39	U4 acid grassland was present in small amounts throughout the Proposed Development, although many of the locations are not shown on the map as the patches were too small to represent on the map. It appeared to be of a similar species composition throughout, being dominated by sheep's fescue, common bent, heath bedstraw, sweet vernal-grass, tormentil and the moss *Rhytidiadelphus squarrosus.*	g1b6 Other upland acid grassland	No
U20 *Pteridium aquilinum-Galium saxatile* community	5	4.12	Patches of bracken were present towards the south of the Proposed Development, to the north of Dalchork substation. The U20 community is typically species poor and in places consisted of a monoculture of bracken.	g1c Bracken	No

[46] The dry heathland is unlikely to qualify as Annex I Priority Habitat as it is mostly still very disturbed and recently re-generating within areas of clear-felled coniferous plantation.

NVC Community	Numbered Areas (shown on NVC Map-Annex A-Figure 7.1.4)	Total Area of NVC Community (ha)	NVC Community Description	Corresponding UKHab Classification	Priority Peatland (likely NatureScot Status)
Unclassified-Coniferous Plantation	11, 21, 23, 31, 32, 33, 34, 36, 37, 51, 54, 55, 56, 57, 59, 62, 65, 75, 85, 86, 91, 93, 95	159.26	The largest single habitat type within the Proposed Development was Unclassified-Coniferous Plantation. No attempt was made to assign an NVC classification to these areas which consisted of very closely spaced Scots pine *Pinus sylvestris* and non-native species including Sitka spruce *Picea sitchensis* and Douglas fir *Pseudotsuga menziesii.*	w2c Other coniferous woodland	No
Unclassified-Other	1, 2, 15, 16, 30, 35, 42, 50, 67, 76, 77, 89, 96, 99, 100	114.90	The majority of land classified as Unclassified-Other consisted of areas of recently felled conifer plantation which were very disturbed and often devoid of living vegetation (Areas 30, 35 and 50). Other unclassified areas included hard standing at Dalchork substation (Area 1) and the settlement at Dalnessie (Area 96), an area of unclassified neutral grassland at the substation (Area 99), habitat mosaics (Areas 15 and 16), an area of recently planted deciduous woodland (Area 100) and mounds within large expanses of M25 with conifer saplings/young trees establishing (Areas 76 and 77).	NA	NA

3.4 Priority Peatlands

3.4.1 Numbered NVC areas were assessed against NatureScot criteria for Priority Peatlands in the NatureScot template **Annex B, Table B-4**. The following areas were identified as Good or of Potential National Interest using the criteria within the NatureScot template:

- **Area 29 (M17/M2) Good:** This area consisted primarily of M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire, with a few small pools (too small to map) with *Sphagnum cuspidatum* (M2 *Sphagnum cuspidatum/fallax* bog pool). Assessed as Good due to having vegetation capable of forming peat. This area is located approximately 100 m west of the Proposed Alignment and should therefore not be directly affected.
- **Area 49 (M17/M2) Good:** This area consisted primarily of M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire, with a few small pools (too small to map) with *Sphagnum cuspidatum* (M2 *Sphagnum cuspidatum/fallax* bog pool). Assessed as Good due to having vegetation capable of forming peat. This area is located approximately 90 m west of the Proposed Alignment and should therefore not be directly affected.
- **Areas 73 and 74 (M18a) Good:** These areas consisted of M18a *Erica tetralix-Sphagnum papillosum* raised and blanket mire-*Sphagnum medium/divinum-Andromeda polifolia* sub-community. Assessed as Good due to having vegetation capable of forming peat. Area 73 is located approximately 200 m west of the Proposed Alignment and should therefore not be directly affected. Area 74 is located approximately 250 m west of the Proposed Alignment and should therefore not be directly affected.
- **Area 78 (M19) Good:** This area consisted of M19 *Calluna vulgaris-Eriophorum vaginatum* blanket mire. Assessed as Good due to having vegetation capable of forming peat. Area 78 is located approximately 120 m north of the Proposed Alignment and should therefore not be directly affected.
- **Area 81 (M18a) Potential National Interest:** This area consisted of M18a *Erica tetralix-Sphagnum papillosum* raised and blanket mire-*Sphagnum medium/divinum-Andromeda polifolia* sub-community. Assessed as Potential National Interest due to *Sphagnum austinii* being recorded during NVC survey. Area 81 is located approximately 50 m north of the Proposed Alignment, with a road separating it from the location of the poles. Due to the road being raised above and forming a barrier to Area 81 from the works area it is assumed that this area will not be directly affected.
- **Area 83 (M19) Good:** This area consisted of M19 *Calluna vulgaris-Eriophorum vaginatum* blanket mire. Assessed as Good due to having vegetation capable of forming peat. Area 83 is located directly to the south of the Proposed Alignment. This location is at the junction of two roads/forestry tracks, with Area 83 located south of the road. Therefore, it is assumed that all works will take place from the road, with the land to the south unaffected.
- **Area 94 (M17) Good:** This area consisted of M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire. Assessed as Good due to having vegetation capable of forming peat. This area is located approximately 190 m south of the Proposed Alignment and should therefore not be directly affected.
- **Area 101 (M18a) Good:** This area consisted of M18a *Erica tetralix-Sphagnum papillosum* raised and blanket mire-*Sphagnum medium/divinum-Andromeda polifolia* sub-community. Assessed as Good due to having vegetation capable of forming peat. This area is located approximately 130 m west of the Proposed Alignment and should therefore not be directly affected.
- **Area 111 (M17) Good:** This area consisted of M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire. Assessed as Good due to having vegetation capable of forming peat. This area is beneath the alignment for a distance of approximately 250 m. This area will be directly affected by the Proposed Alignment. Although mapped as M17, the vegetation in this area also consists of small-scale mosaics with M15.

4. CONCLUSIONS

4.1.1 This Ecology Technical Report provides a baseline description of UKHab habitats and NVC communities within the Survey Area to inform the EA. The Proposed Development lies within a hilly landscape, containing conifer plantation interspersed with upland habitat types on exposed hillsides, comprised mainly of acid grassland and heathland habitats with areas of degraded blanket bog habitat throughout.

4.1.2 No international and nationally designated sites lie within the boundary of the Proposed Development. No no-ornithological nationally designated sites were recorded within 2 km of the Proposed Development. Within a 10 km buffer, three statutory designated sites (non-ornithological) were recorded, the closest of which being Caithness and Sutherland Peatlands SAC and Caithness and Sutherland Peatlands Ramsar, which both lie 3.66 km to the south-west.

4.1.3 One Annex I and priority SBL habitat was recorded within the UK Habitat Survey Area: Wet heathland with cross-leaved heath; upland (H4010) (h1b6). Five further SBL priority habitats, also listed as Highland Nature BAP habitats were recorded within the UK Habitat Survey Area including: Upland heathland (h1b), Other Scot's Pine woodland (w2b), Wet woodland (w1d), Degraded blanket bog (f1a6) and Purple moor-grass and rush pastures (f2b).

4.1.4 Numerous Other rivers and streams (r2a) flow through the valleys of the UK Habitats Survey Area, including Feith Osdail to the south and Allt Chaiseagail to the north, respectively along with unnamed burns. These watercourses also qualify as a SBL habitat.

4.1.5 During the NVC survey seven mire communities (M4, M6c, M17, M18a, M19, M20 and M25), one wet heath community (M15) and one dry heath community (H9) were identified within 250 m of the Proposed Alignment. Nine areas were assessed as Good, using the criteria within the NatureScot Priority Peatlands template.

4.1.6 One area was assessed as being of Potential National Interest using the criteria within the NatureScot Priority Peatlands template. This was Area 81, an area of M18a *Erica tetralix-Sphagnum papillosum* raised and blanket mire-*Sphagnum medium/divinum-Andromeda polifolia* sub-community. It was assessed as Potential National Interest due to *Sphagnum austinii* being recorded during NVC survey. Area 81, however, is located approximately 50 m north of the Proposed Alignment, with a road separating it from the location of the poles. Due to the road being raised above and forming a barrier to Area 81 from the works area it is assumed that this area will not be directly affected.

4.1.7 The only area that will be directly affected is an area of M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire. It was assessed as Good due to having vegetation capable of forming peat. This area is beneath the alignment for a distance of approximately 250 m, towards the north of the Proposed Development.

Annex A Figures

Figure 7.1.1: UK Habitat Survey Results

Figure 7.1.2: International and European Designated Sites within 10 km

Figure 7.1.3: National, Local and Woodland Designations within 2 km

Figure 7.1.4: NVC Results

Date Saved: 9/2/2024

Document Path: \\uk.wspgroup.com\central data\Projects\70109xx\70109477 - Chleansaid WF Connection EIA\03 WIP\Ecology\GIS\MXD\Habitat Tech Appendix MXD\Fig 7.1.1 Chleansaid Hab Results v2.mxd

N

Key:

- Proposed Alignment
- UK Habitat Survey Area - 500 m corridor

Temporary areas of habitat loss

- Tower Trenching
- Proposed Pulling Position
- Temporary Access (proposed open ground/temporary trakway system)

UK Habitats

- f1a6 - degraded blanket bog
- f2b - purple moore grass and rush pastures
- g1b6 - other upland acid grassland
- g1c - bracken
- g4 - modified grassland
- h1b - upland heathland
- h1b6 - wet heathland with cross-leaved heath, upland (H4010)
- u1b - developed land, sealed surface
- u1b5 - buildings
- u1c - artificial unvegetated unsealed surface
- u1d - suburban mosaic of developed/natural surfaces
- w1d - wet woodland
- w1g7 - other broadleaved woodland types
- w2b - other scots pine woodland
- w2c - other coniferous woodland
- h2b - other hedgerows
- r2b - other rivers and streams
- 00 - Secondary Codes

0 0.5 1 2 Kilometres

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Chleansaid Wind Farm 132 kV OHL Connection

Title: Figure 7.1.1 UK Habitat Survey Results Page 1 / 5

Date:	Monday, September 2, 2024	Scale:	26,050 @ A3		
Drawn:	TR	Checked:	RW	Approved:	RW

N

14

36, 48

11, 60

60

36

11, 14, 13

120, 15

47

11, 17, 16

36

36

11, 13

36, 189

0 0.25 0.5 1 Kilometres

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Key:

- Proposed Alignment
- UK Habitat Survey Area - 500 m corridor

Temporary areas of habitat loss

- Tower Trenching
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- u1b - developed land, sealed surface
- u1b5 - buildings
- u1c - artificial unvegetated unsealed surface
- u1d - suburban mosaic of developed/natural surfaces
- w2c - other coniferous woodland
- h2b - other hedgerows
- r2b - other rivers and streams
- 00 - Secondary Codes

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Chleansaid Wind Farm 132 kV OHL Connection

Title: Figure 7.1.1 UK Habitat Survey Results Page 2 / 5

Date: Monday, September 2, 2024 Scale: 9,260 @ A3

Drawn: TR Checked: RW Approved: RW

N

36
11, 14, 13
13, 189
36
36
13, 14, 11
14, 13
189, 120
13
53, 189, 11, 14
189
47, 189
47, 189
47, 189
36

0 0.25 0.5 1 Kilometres

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Key:

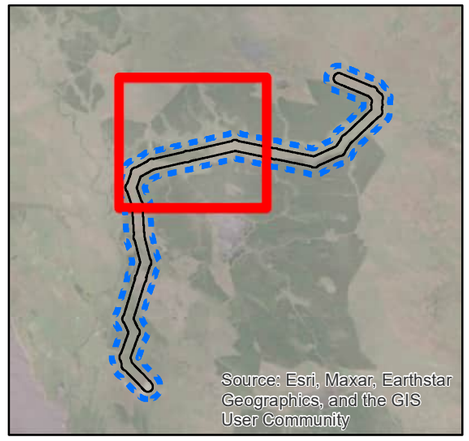
- Proposed Alignment
- UK Habitat Survey Area - 500 m corridor

Temporary areas of habitat loss

- Tower Trenching
- Proposed Pulling Position
- Temporary Access (proposed open ground/temporary trakway system)

UK Habitats

- f1a6 - degraded blanket bog
- g1b6 - other upland acid grassland
- h1b6 - wet heathland with cross-leaved heath, upland (H4010)
- u1c - artificial unvegetated unsealed surface
- w2b - other scots pine woodland
- w2c - other coniferous woodland
- r2b - other rivers and streams
- 00 - Secondary Codes



Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Chleansaid Wind Farm 132 kV OHL Connection

Title: Figure 7.1.1 UK Habitat Survey Results Page 3 / 5

Date: Monday, September 2, 2024 Scale: 9,260 @ A3
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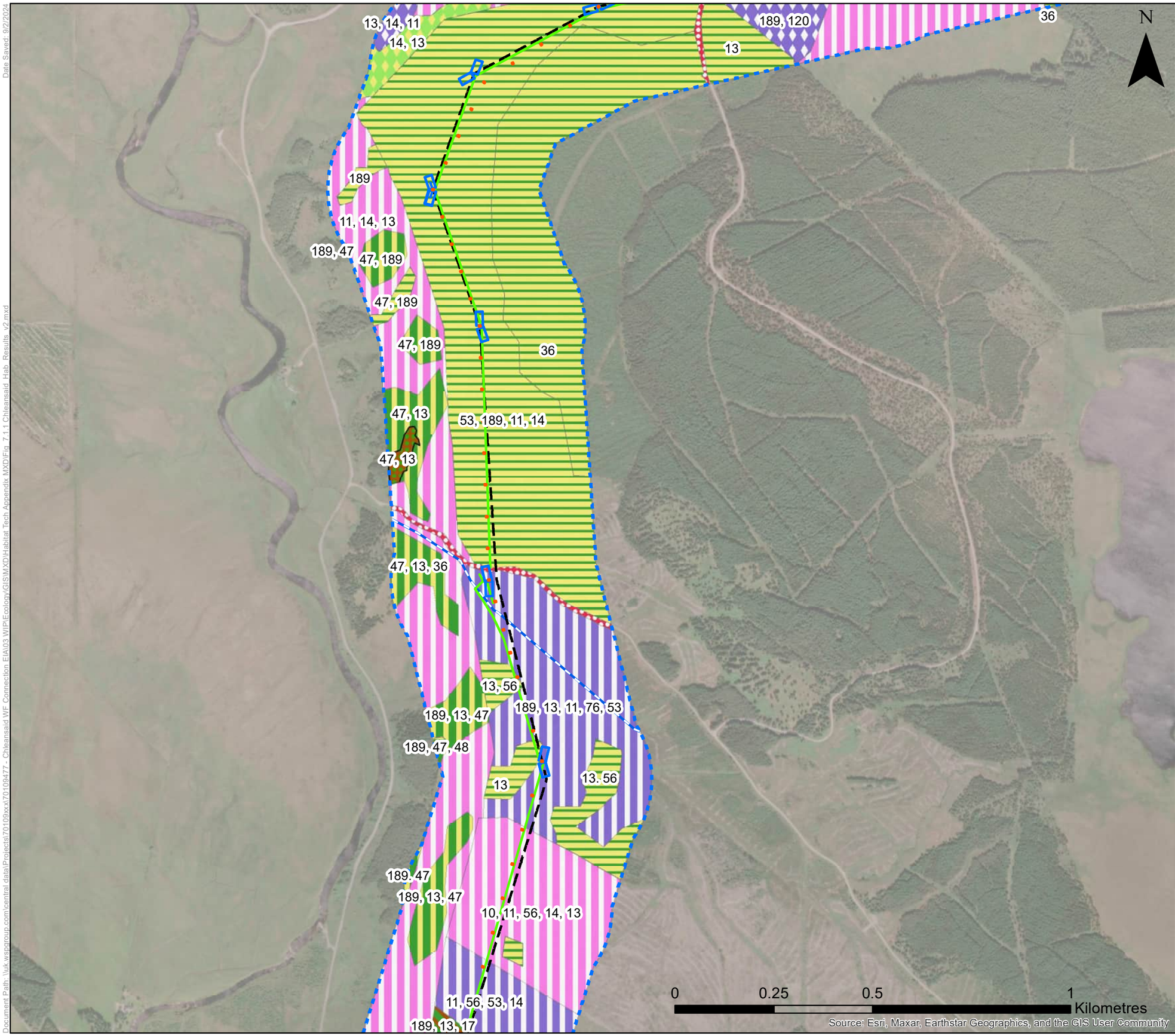

Key:

- Proposed Alignment
- UK Habitat Survey Area - 500 m corridor

Temporary areas of habitat loss

- Tower Trenching
- Proposed Pulling Position
- Temporary Access (proposed open ground/temporary trakway system)

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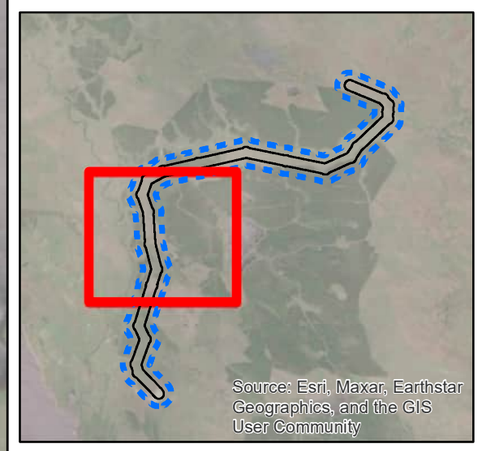
- h1b - upland heathland
- h1b6 - wet heathland with cross-leaved heath, upland (H4010)
- u1c - artificial unvegetated unsealed surface
- w1d - wet woodland
- w1g7 - other broadleaved woodland types
- w2b - other scots pine woodland
- w2c - other coniferous woodland
- r2b - other rivers and streams
- 00 - Secondary Codes



Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Chleansaid Wind Farm 132 kV OHL Connection

Title: Figure 7.1.1 UK Habitat Survey Results Page 4 / 5

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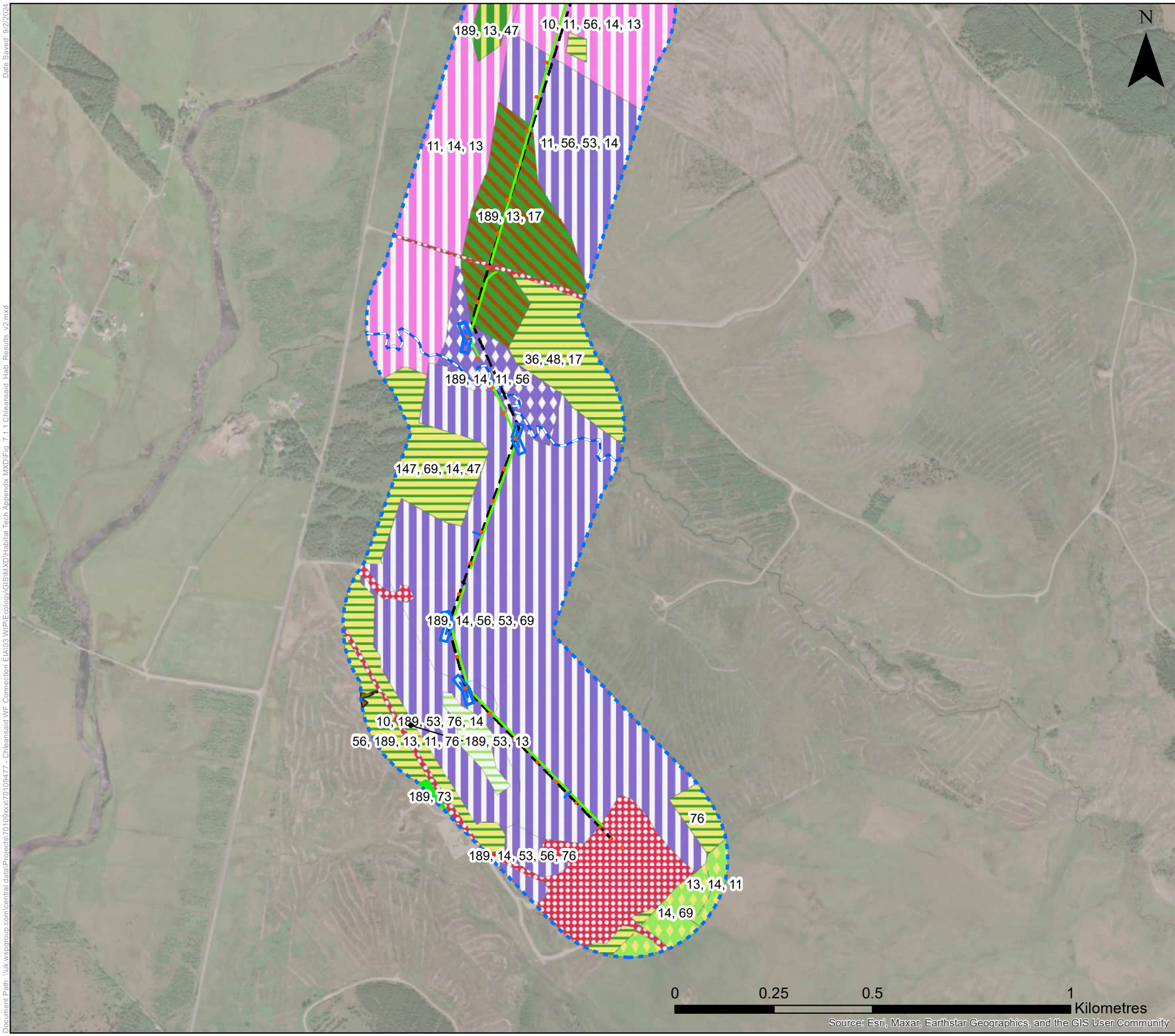

Key:

- Proposed Alignment
- UK Habitat Survey Area - 500 m corridor

Temporary areas of habitat loss

- Tower Trenching Areas
- Proposed Pulling Position
- Temporary Access (proposed open ground/temporary trakway system)

UK Habitats

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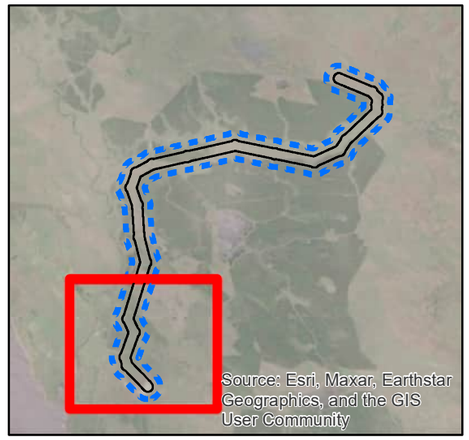
- g1b6 - other upland acid grassland
- g1c - bracken
- g4 - modified grassland
- h1b - upland heathland
- h1b6 - wet heathland with cross-leaved heath, upland (H4010)
- u1c - artificial unvegetated unsealed surface
- w1d - wet woodland
- w1g7 - other broadleaved woodland types
- w2b - other scots pine woodland
- w2c - other coniferous woodland
- r2b - other rivers and streams
- 00 - Secondary Codes



Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Chleansaid Wind Farm 132 kV OHL Connection

Title: Figure 7.1.1
UK Habitat Survey Results
Page 5 / 5

Date: Monday, September 2, 2024 Scale: 9,260 @ A3
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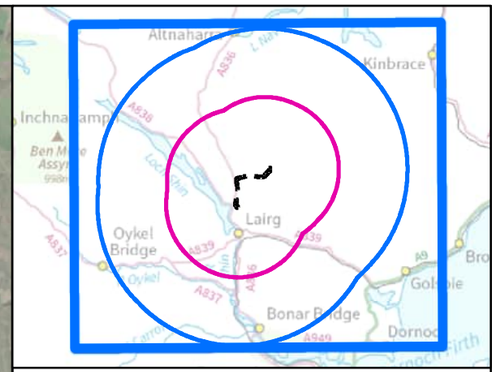
Altnaharra SAC
River Naver SAC
Caithness and Sutherland Peatlands SPA
Caithness and Sutherland Peatlands Ramsar
Caithness and Sutherland Peatlands SAC
Lairg and Strath Brora Lochs SPA
River Oykel SAC
Mound Alderwoods SAC
Strath Carnaig and Strath Fleet Moors SPA
Dornoch Firth and Loch Fleet Ramsar
Dornoch Firth and Loch Fleet SPA
Moray Firth SPA
Moray Firth SAC
River Evelix SAC
Dornoch Firth and Morrich More SAC

N



Key

- Proposed OHL Alignment
- 20 km Survey Area
- 10 km Survey Area
- Special Protection Area (SPA)
- Ramsar
- Special Area of Conservation (SAC)
- Loch Shin and Nearby Lochs Important Bird Area

0 5 10
Km

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: **Chleansaid Windfarm Connection**

Title: Figure 7.1.2
International and European Designated Sites within 20km

Date: 16/09/2024 Scale: 169,650 @ A3
Drawn: AT Checked: RW Approved: RW
Drawing Number: Draft

Date Saved: 9/16/2024
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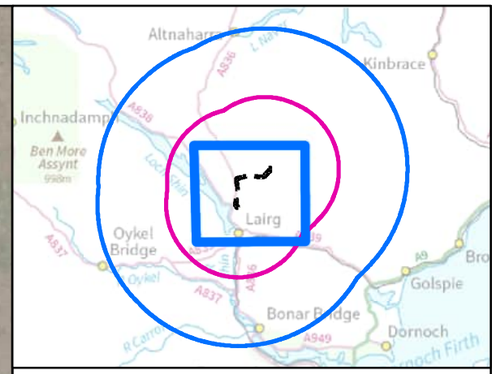

Key

- Proposed OHL Alignment
- 20 km Survey Area
- 10 km Survey Area
- Special Protection Area (SPA)
- Ramsar
- Special Area of Conservation (SAC)
- Loch Shin and Nearby Lochs Important Bird Area

0 1.5 3
Km

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Chleansaid Wind Farm 132 kV OHL Connection

Title: Figure 7.1.2
International and European Designated Sites within 20km

Date: 16/09/2024 Scale: 51,380 @ A3
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Drawing Number: Draft

Date Saved: 9/16/2024
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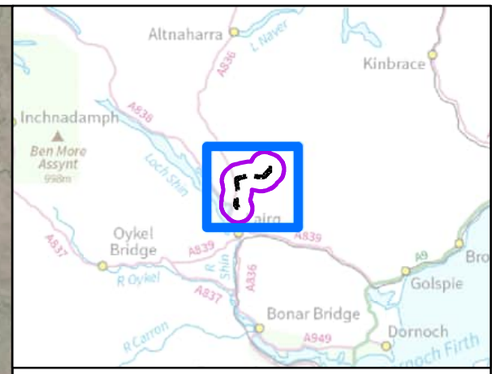
Lairg and Brora Lochs SSSI

Strath Carnaig and Strath Fleet Moors SSSI

Lairg and Strath Brora Lochs SSSI

Grudie Peatlands SSSI

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Key

- Proposed OHL Alignment
- 2km buffer

Anicent Woodland Inventory (AWI)

- Ancient (of semi-natural origin)

Native Woodland Survey of Scotland (NWSS)

- Native woodland
- Sites of Special Scientific Interest (SSSI)
- B-lines

0 1 2

Km

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Chleansaid Wind Farm 132 kV OHL Connection

Title: Figure 7.1.3
National and Woodland Designations within 2km

Date: 16/09/2024 Scale: 42,000 @ A3

Drawn: TR Checked: RW Approved: RW

Drawing Number: Draft

Date Saved: 9/16/2024

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N

Key:

- NVC Survey Area
- Tower Trenching Areas
- Proposed Pulling Position
- Temporary Access (proposed open ground/temporary trakway system)
- Proposed Alignment

NVC Code

- Unclassified
- Coniferous Plantation
- H9
- M15
- M17
- M18a
- M19
- M20
- M23b
- M25
- M4
- M6c
- MG6
- Road/Track
- U20
- U4
- Watercourse

0 0.5 1 2 Kilometres

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Chleansaid Wind Farm 132 kV OHL Connection

Title: Figure 7.1.4 NVC Results Page 1 / 5

Date: Monday, September 16, 2024 Scale: 26,100 @ A3

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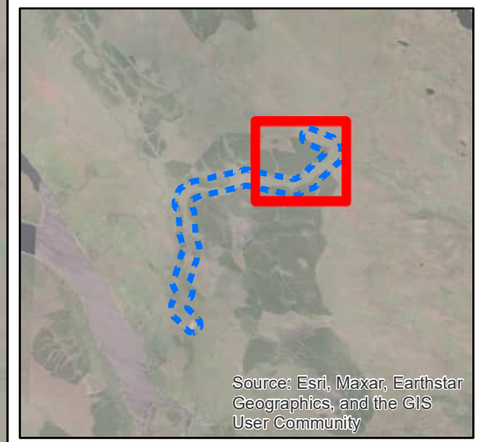
N

Key:

- NVC Survey Area
- Tower Trenching Areas
- Proposed Pulling Position
- Temporary Access (proposed open ground/temporary trakway system)
- Proposed Alignment

NVC Code

- Unclassified
- Coniferous Plantation
- H9
- M15
- M17
- M18a
- M23b
- M25
- M4
- M6c
- MG6
- Road/Track
- U4
- Watercourse



0 0.25 0.5 1 Kilometres

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Chleansaid Wind Farm 132 kV OHL Connection

Title: Figure 7.1.4 NVC Results Page 2 / 5

Date: Monday, September 16, 2024 Scale: 9,300 @ A3
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Date Saved: 9/16/2024

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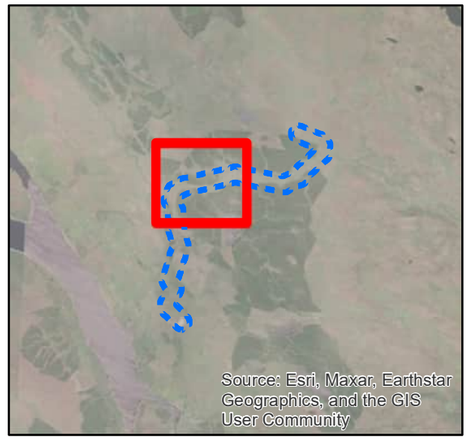
N

Key:

- NVC Survey Area
- Tower Trenching Areas
- Proposed Pulling Position
- Temporary Access (proposed open ground/temporary trakway system)
- Proposed Alignment

NVC Code

- Unclassified
- Coniferous Plantation
- M17
- M18a
- M19
- M20
- M25
- M6c
- Road/Track



0 0.25 0.5 1 Kilometres

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Chleansaid Wind Farm 132 kV OHL Connection

Title: Figure 7.1.4 NVC Results Page 3 / 5

Date: Monday, September 16, 2024 Scale: 9,300 @ A3

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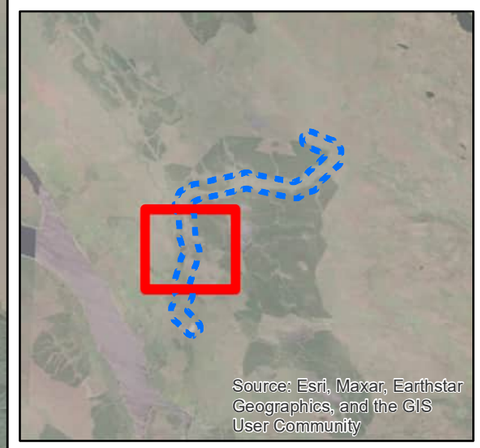
N

Key:

- NVC Survey Area
- Tower Trenching Areas
- Proposed Pulling Position
- Temporary Access (proposed open ground/temporary trakway system)
- Proposed Alignment

NVC Code

- Unclassified
- Coniferous Plantation
- H9
- M15
- M17
- M18a
- M20
- M25
- M4
- M6c
- Road/Track
- Watercourse



0 0.25 0.5 1 Kilometres

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Chleansaid Wind Farm 132 kV OHL Connection

Title: Figure 7.1.4 NVC Results Page 4 / 5

Date: Monday, September 16, 2024 Scale: 9,300 @ A3

Drawn: AS Checked: PH Approved: -

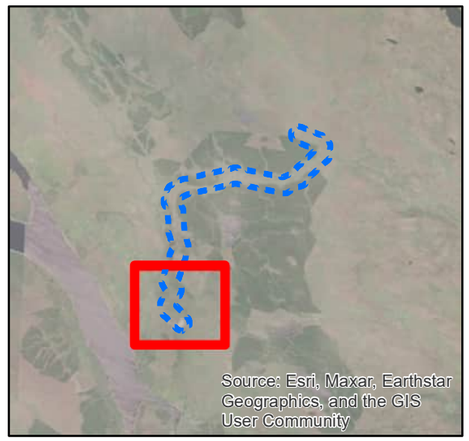
N

Key:

- NVC Survey Area
- Tower Trenching Areas
- Proposed Pulling Position
- Temporary Access (proposed open ground/temporary trakway system)
- Proposed Alignment

NVC Code

- Unclassified
- Coniferous Plantation
- H9
- M15
- M25
- M6c
- Road/Track
- U20
- U4
- Watercourse



0 0.25 0.5 1 Kilometres

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Chleansaid Wind Farm 132 kV OHL Connection

Title: Figure 7.1.4 NVC Results Page 5 / 5

Date: Monday, September 16, 2024 Scale: 9,300 @ A3

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Annex B Species List

Table B-1: UK Habitat Survey Species List

Common name	Latin Species
Alder	*Alnus glutinosa*
Bell heather	*Erica cinerea*
Bilberry	*Vaccinium myrtillus*
Birch sp.	*Betula sp.*
Bog asphodel	*Narthecium ossifragum*
Bog myrtle	*Myrica gale*
Bog pondweed	*Potamogeton polygonifolius*
Broom	*Cytisus scoparius*
Broadleaved dock	*Rumex obtusifolius*
Bracken	*Pteridium aquilinum*
Cock's-foot	*Dactylis glomerata*
Common haircap	*Polytrichum commune*
Creeping buttercup	*Ranunculus repens*
Creeping thistle	*Cirsium arvense*
Crested dogs-tail	*Cynosurus cristatus*
Cross-leaved heath	*Erica tetralix*
Daisy	*Bellis perennis*
Deergrass	*Trichophorum germanicum*
Douglas fir	*Pseudtsuga menziesii*
Downy birch	*Betula pubescens*
Fox glove	*Digitalis purpurea*
Gorse	*Ulex europaeus*

Common name	Latin Species
Hawthorn	*Crataegus monogyna*
Hare's-tail cottongrass	*Eriophorum vaginatum*
Heath rush	*Juncus squarrosus*
Heather	*Calluna vulgaris*
Larch	*Larix decidua*
Marsh thistle	*Cirsium palustre*
Mat-grass	*Nardus stricta*
Perennial ryegrass	*Lolium perenne*
Purple moor-grass	*Molinia caerulea*
Reindeer lichen	*Cladonia* spp.
Rosebay willowherb	*Chamaenerion angustifolium*
Scot's pine	*Pinus sylvestris*
Sharp-flowered rush	*Juncus acutiflorus*
Sheep's sorrel	*Rumex acetosella*
Sitka spruce	*Picea sitchensis*
Soft rush	*Juncus effusus*
Sweet vernal grass	*Anthoxanthum odoratum*
Tormentil	*Potentilla erecta*
White clover	*Trifolium repens*
Wavy hair grass	*Avenella flexuosa*
Willow sp.	*Salix* sp.
Yorkshire-fog	*Holcus lanatus*

Table B-2: UKHab Secondary Code Target Notes

Secondary Code	Secondary Code Description
11	Scattered trees (Habitat Mosaic)
12	Scattered bracken (Habitat Mosaic)
13	Scattered dwarf shrubs (Habitat Mosaic)
14	Scattered rushes (Habitat Mosaic)
15	Rushes dominant
16	Tall herb (Habitat Mosaic)
17	Ruderal/ ephemeral (Habitat Mosaic)
36	Plantation (Origin)
47	Native (Origin)
53	Felled (Management)
56	Young trees - planted (Management)
60	Sheep grazed (Management)
67	Dry stone wall (Management)
69	Fence (Management)
76	Recent Management (Management)
120	Wet (Environmental Qualifier)
159	Standing dead wood abundant (Species Feature)
189	Scattered grass (Mosaic)

Table B-3: NVC Survey Indicative Species Lists

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
1	NA	NA	NA	**Unclassified**	Dalchork Substation; hardstanding and buildings with no vegetation.
2	NA	NA	NA	**Unclassified**	Mostly bare, compacted ground.
3	*Agrostis capillaris*	Common Bent	D	**U4 *Festuca ovina-Agrostis capillaris-Galium saxatile* grassland**	Grassland strip around Dalchork Substation.
	Calluna vulgaris	Heather	O		
	Carex binervis	Green-ribbed Sedge	O		
	Chamaenerion angustifolium	Rosebay Willowherb	F		
	Digitalis purpurea	Foxglove	R		
	Festuca ovina	Sheep's Fescue	F		
	Galium saxatile	Heath Bedstraw	F		
	Holcus lanatus	Yorkshire-fog	R		
	Hypnum jutlandicum	Heath Plait-moss	O		
	Juncus effusus	Soft Rush	O		
	Juncus squarrosus	Heath Rush	O		
	Molinia caerulea	Purple Moor-grass	O		
	Pinus sylvestris	Scots Pine (seedings)	F		
	Polytichum juniperinum	Juniper Haircap	F		
	Potentilla erecta	Tormentil	R		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
4	*Agrostis capillaris*	Common Bent	F	**H9 *Calluna vulgaris-Avenella flexuosa* heath**	Frequent re-generating heather but rows of felled plantation conifer stumps still visible and abundant disturbed ground.
	Avenella flexuosa	Wavy Hair-grass	A		
	Betula pendula	Silver Birch (seedlings)	O		
	Blechnum spicant	Hard-fern	R		
	Calluna vulgaris	Heather	D		
	Campylopus introflexus	Heath Star-moss	O		
	Carex binervis	Green-ribbed Sedge	O		
	Chamaenerion angustifolium	Rosebay Willowherb	R		
	Cladonia floerkeana	A Cladonia Lichen	R		
	Cladonia portentosa	A Cladonia Lichen	R		
	Deschampsia cespitosa	Tufted Hair-grass	R		
	Digitalis purpurea	Foxglove	O		
	Festuca ovina	Sheep's Fescue	O		
	Galium saxatile	Heath Bedstraw	O		
	Holcus lanatus	Yorkshire-fog	O		
	Hylocomium splendens	Glittering Wood-moss	F		
	Hypnum jutlandicum	Heath Plait-moss	A		
	Juncus effusus	Soft Rush	R		
	Luzula sylvatica	Great Wood-rush	R		
	Molinia caerulea	Purple Moor-grass	O		
	Picea sp.	Spruce (seedlings)	O		
	Pinus sylvestris	Scots Pine (seedings)	F		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Pleurozium schreberi	Red-stemmed Feather-moss	F		
	Polytichum juniperinum	Juniper Haircap	F		
	Polytrichum commune	Common Haircap	F		
	Potentilla erecta	Tormentil	R		
	Pseudoscleropodium purum	Neat Feather-moss	R		
	Pteridium aquilinum	Bracken	R		
	Rhytidiadelphus squarrosus	Springy turf-moss	R		
	Rumex acetosa	Common Sorrell	R		
	Rumex acetosella	Sheep's Sorrel	R		
	Sphagnum capillifolium	Acute-leaved Bog-moss	R		
5	NA	NA	NA	**U20 *Pteridium aquilinum-Galium saxatile* community**	Bracken dominated area. Patches with dense dead bracken stems and some new fronds appearing. Also frequent rosebay willowherb.
6	NA	NA	NA	**U4 *Festuca ovina-Agrostis capillaris-Galium saxatile* grassland**	Grassland strip along post and wire fence. Very similar spp. composition to Area 3 but more abundant pioneer stage heather present. Additional spp. included *Rhytidiadelphus squarrosus* (O), common sedge *Carex nigra* (O) and nodding thread-moss *Pohlia nutans* (O) on bare peat.
7	NA	NA	NA	**H9 *Calluna vulgaris-Avenella flexuosa* heath**	Fenced area of previously felled conifer plantation. Another recently felled conifer plantation which has been allowed to naturally re-vegetate, but this fenced area has taller spruce and pine trees growing more densely than over Area 4. Presumably the fence is excluding deer which has allowed denser tree and scrub growth.
8	NA	NA	NA	**U4 *Festuca ovina-Agrostis capillaris-Galium saxatile* grassland**	Grassland track leading towards access road from A836. Same spp. composition as Areas 3 and 6 but with some patches of soft rush.

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
9	NA	NA	NA	**H9 *Calluna vulgaris-Avenella flexuosa* heath**	Previously felled area of coniferous plantation with heather-dominated re-growth. Very similar to Area 4, with only small, scattered pine and spruce re-growth, unlike the dense growth within Area 7.
10	NA	NA	NA	**H9 *Calluna vulgaris-Avenella flexuosa* heath**	This area had very dense conifer re-growth in parts but with similar heather-dominated vegetation to Area 3 where trees were less dense, with mosses including *Polytrichum commune, Pleurozium schreber*i and *Polytrichum juniperinum* covering bare ground. There was very little heather present along the line of the existing powerline running through Area 10, apart from some very immature pioneer growth stage. This strip was dominated by soft rush and bulbous rush *Juncus bulbosus*.
11	NA	NA	NA	**Unclassified**	Coniferous plantation.
12	*Aulacomnium palustre*	Bog Bead-moss	O	**M25 *Molinia caerulea-Potentilla erecta* mire (localised patches of M3 *Eriophorum angustifolium* bog pool community)**	Less Sphagnum occurred further west, closer to plantation woodland (Area 11).
	Calluna vulgaris	Heather	F		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum angustifolium	Common Cottongrass	O		
	Eriophorum vaginatum	Hare's-tail Cottongrass	R		
	Hylocomium splendens	Glittering Wood-moss	O		
	Hypnum jutlandicum	Heath Plait-moss	O		
	Juncus effusus	Soft Rush	O		
	Molinia caerulea	Purple Moor-grass	D		
	Myrica gale	Bog Myrtle	O		
	Pleurozium schreberi	Red-stemmed Feather-moss	O		
	Polytrichum commune	Common Haircap	F		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Potentilla erecta	Tormentil	O		
	Sphagnum auriculatum	Cow-horn Bog-moss	O		
	Sphagnum capillifolium	Acute-leaved Bog-moss	O		
	Sphagnum palustre	Blunt-leaved Bog-moss	O		
	Viola palustris	Marsh Violet	R		
13	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire with birch scrub**	Similar species composition to Area 12 but with heather becoming co-dominant with purple moor-grass between developing birch scrub and cross-leaved heath being absent.
14	*Carex demissa*	Common Yellow Sedge	R	**M6c *Carex echinata-Sphagnum fallax/auriculatum* mire-*Juncus effusus* sub-community (localised patches of M3 *Eriophorum angustifolium* bog pool community)**	Track along existing power lines leads down steep slope with water running down slope with pooling in hollows and flat areas. Pools dominated by common cottongrass and bog pondweed.
	Cirsium palustre	Marsh Thistle	O		
	Equisetum variegatum	Variegated Horsetail	O		
	Eriophorum angustifolium	Common Cottongrass	F		
	Hylocomium splendens	Glittering Wood-moss	O		
	Juncus bulbosus	Bulbous Rush	D		
	Juncus effusus	Soft Rush	A		
	Philonotis fontana	Fountain Apple-moss	R		
	Polytrichum commune	Common Haircap	O		
	Potamogeton polygonifolius	Bog Pondweed	O		
	Potentilla erecta	Tormentil	R		
	Ranunculus flammula	Lesser Spearwort	R		
	Sphagnum auriculatum	Cow-horn Bog-moss	O		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Sphagnum capillifolium	Acute-leaved Bog-moss	R		
	Sphagnum fallax	Flat-topped Bog-moss	F		
	Sphagnum palustre	Blunt-leaved Bog-moss	O		
	Sphagnum subnitens	Lustrous Bog-moss	R		
	Viola palustris	Marsh Violet	O		
15	NA	NA	NA	**Mosaic of M25 and M6c mire communities**	This area consisted of a mixture of soft rush dominated and purple moor-grass dominated areas which were too small to map. Therefore, described as a mosaic.
16	NA	NA	NA	**Mosaic of M25 and M6c mire communities with birch scrub**	Similar ground flora to Area 15 but with developing birch scrub growing across the area.
17- 19	*Calluna vulgaris*	Heather	A	**M15 *Trichophorum germanicum-Erica tetralix* wet heath with localised patches of M3 *Eriophorum angustifolium* bog pool community and M6c Carex echinata-Sphagnum fallax/auriculatum mire-*Juncus effusus* sub-community**	These areas are contiguous, with Areas 17 and 18 to the south of a small watercourse and Area 19 to the north of the watercourse. The species list for M15 community is a compilation of the three areas. There were also small pools dominated by common cottongrass (M3 bog pools) and two strips of rush-dominated vegetation running south to north, parallel to the existing power lines, which resembled M6c mire, with *Polytrichum commune* and *Sphagnum* species below a layer of rushes.
	Cirsium palustre	Marsh Thistle	O		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum angustifolium	Common Cottongrass	O		
	Galium saxatile	Heath Bedstraw	R		
	Hypnum jutlandicum	Heath Plait-moss	F		
	Juncus bulbosus	Bulbous Rush	F		
	Juncus effusus	Soft Rush	F		
	Molinia caerulea	Purple Moor-grass	A		
	Pleurozium schreberi	Red-stemmed Feather-moss	F		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Pohlia nutans	Nodding Thread-moss	R		
	Polytrichum commune	Common Haircap	O		
	Potentilla erecta	Tormentil	O		
	Sphagnum auriculatum	Cow-horn Bog-moss	O		
	Sphagnum capillifolium	Acute-leaved Bog-moss	O		
	Sphagnum subnitens	Lustrous Bog-moss	R		
	Trichophorum germanicum	Deergrass	F		
	Viola palustris	Marsh Violet	R		
20	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	This strip of vegetation is to the west of a post and wire fence. It was dominated by purple moor-grass, with few other species present.
21	NA	NA	NA	**Unclassified**	Coniferous plantation to the east with scattered birch and willow to the west.
22	**M15 areas**			**M15 *Trichophorum germanicum-Erica tetralix* wet heath with patches of M4 *Carex rostrata-Sphagnum fallax* mire**	Clearing within area of mixed woodland. Predominantly M15 but with some wet channels running south to north containing bog pondweed, *Sphagnum auriculatum*, common cottongrass, bottle sedge and *Sphagnum cuspidatum*.
	Calluna vulgaris	Heather	A		
	Cirsium palustre	Marsh Thistle	O		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum angustifolium	Common Cottongrass	O		
	Hypnum jutlandicum	Heath Plait-moss	O		
	Juncus effusus	Soft Rush	R		
	Molinia caerulea	Purple Moor-grass	A		
	Pleurozium schreberi	Red-stemmed Feather-moss	F		
	Polytrichum commune	Common Haircap	O		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Potentilla erecta	Tormentil	R		
	Sphagnum palustre	Blunt-leaved Bog-moss	O		
	Sphagnum papillosum	Papillose Bog-moss	R		
	Sphagnum subnitens	Lustrous Bog-moss	R		
	Trichophorum germanicum	Deergrass	F		
	Viola palustris	Marsh Violet	O		
	M4 areas				
	Aulacomnium palustre	Bog Bead-moss	F		
	Carex nigra	Common sedge	O		
	Carex rostrata	Bottle Sedge	D		
	Eriophorum angustifolium	Common Cottongrass	O		
	Molinia caerulea	Purple Moor-grass	F		
	Polytrichum commune	Common Haircap	O		
	Potentilla palustris	Marsh Cinquefoil	R		
	Sphagnum auriculatum	Cow-horn Bog-moss	O		
	Sphagnum cuspidatum	Feathery Bog-moss	F		
	Sphagnum fallax	Flat-topped Bog-moss	A		
	Sphagnum subnitens	Lustrous Bog-moss	R		
	Sphagnum teres	Rigid Bog-moss	R		
	Viola palustris	Marsh Violet	O		
23	NA	NA	NA	**Unclassified**	Coniferous plantation.
24	*Aulacomnium palustre*	Bog Bead-moss	R	**M25 *Molinia caerulea-Potentilla erecta* mire**	

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Calluna vulgaris	Heather	F		
	Cladonia portentosa	A Cladonia Lichen	R		
	Erica tetralix	Cross-leaved Heath	O		
	Eriophorum angustifolium	Common Cottongrass	O		
	Hylocomium splendens	Glittering Wood-moss	F		
	Molinia caerulea	Purple Moor-grass	D		
	Myrica gale	Bog Myrtle	O		
	Pleurozium schreberi	Red-stemmed Feather-moss	O		
	Polytrichum commune	Common Haircap	O		
	Potentilla erecta	Tormentil	R		
	Sphagnum capillifolium	Acute-leaved Bog-moss	R		
	Sphagnum fallax	Flat-topped Bog-moss	O		
	Sphagnum palustre	Blunt-leaved Bog-moss	O		
	Trichophorum germanicum	Deergrass	R		
	Viola palustris	Marsh Violet	R		
25	*Aulacomnium palustre*	Bog Bead-moss	R	**M6c *Carex echinata-Sphagnum fallax/auriculatum* mire-*Juncus effusus* sub-community with patch of M4 *Carex rostrata-Sphagnum fallax* mire**	The M6c vegetation follows the line of the existing pylons, with some localised patches of common reed *Phragmites australis* towards the west and some bottle sedge dominated M4 mire, too small to map. Species list is for the M6c vegetation.
	Blechnum spicant	Hard Fern	R		
	Cirsium palustre	Marsh Thistle	O		
	Erica tetralix	Cross-leaved Heath	O		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Eriophorum angustifolium	Common Cottongrass	F		
	Hylocomium splendens	Glittering Wood-moss	O		
	Juncus bulbosus	Bulbous Rush	A		
	Juncus effusus	Soft Rush	A		
	Molinia caerulea	Purple Moor-grass	R		
	Polytrichum commune	Common Haircap	F		
	Potamogeton polygonifolius	Bog Pondweed	O		
	Potentilla erecta	Tormentil	O		
	Ranunculus flammula	Lesser Spearwort	O		
	Sphagnum auriculatum	Cow-horn Bog-moss	O		
	Sphagnum capillifolium	Acute-leaved Bog-moss	F		
	Sphagnum fallax	Flat-topped Bog-moss	O		
	Sphagnum palustre	Blunt-leaved Bog-moss	O		
	Viola palustris	Marsh Violet	O		
26	NA	NA	NA	**M15 *Trichophorum germanicum-Erica tetralix* wet heath with developing willow and birch scrub**	Within the wooded area there were frequent small pools with M3 and M4 vegetation, amongst patches of heather. Typical constant M15 spp. still present with abundant heather and purple moor-grass but with only occasional/rare cross-leaved heath, tormentil and deergrass. Occasional *Sphagnum capillifolium* and *S. auriculatum*, with rare *S. papillosum* and *S. fallax*. Some crowberry *Empetrum nigrum* present (R) which is rare across entire survey area.
27	NA	NA	NA	**M15 *Trichophorum germanicum-Erica tetralix* wet heath with less dense developing willow and birch scrub**	Similar to Area 26 but further up a slope and with less scrub growth. No M3 or M4 pools present and *Sphagnum* greatly reduced.
28	NA	NA	NA	**H9 *Calluna vulgaris-Avenella flexuosa* heath**	Area 28 is near the top of a hill and has been more recently clear-felled. Dominated by pioneer and building stage heather and

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
					patches of wavy hair-grass, with hardly any *Sphagnum* present. Patches of bracken between the heather. Frequent self-seeded pine and spruce. Overall, very species poor. Similar to Areas 4 and 9.
29	*Aulacomnium palustre*	Bog Bead-moss	O	**M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire with some M2 *Sphagnum cuspidatum/fallax* bog pool community**	A narrow strip of bog vegetation along fence to west of existing power lines, which continues westwards beyond the fence. There were small pools filled with *Sphagnum cuspidatum* within this area. Species list is for M17 mire.
	Calluna vulgaris	Heather	F		
	Cladonia portentosa	A Cladonia Lichen	F		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum angustifolium	Common Cottongrass	R		
	Eriophorum vaginatum	Hare's-tail Cottongrass	A		
	Molinia caerulea	Purple Moor-grass	F		
	Myrica gale	Bog Myrtle	F		
	Narthecium ossifragum	Bog Asphodel	R		
	Pinus sylvestris	Scots pine seedlings	R		
	Pleurozium schreberi	Red-stemmed Feather-moss	R		
	Racomitrium lanuginosum	Wooly Fringe-moss	O		
	Sphagnum capillifolium	Acute-leaved Bog-moss	A		
	Sphagnum cuspidatum	Feathery Bog-moss	O		
	Sphagnum fallax	Flat-topped Bog-moss	R		
	Sphagnum papillosum	Papillose Bog-moss	O		
	Sphagnum tenellum	Soft Bog-moss	O		
	Trichophorum germanicum	Deergrass	F		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
30	NA	NA	NA	**Unclassified**	Very recently clear-felled and very little living vegetation except for some pools/wheel ruts containing *Sphagnum cuspidatum* (M2 bog pool community).
31-34	NA	NA	NA	**Unclassified**	Coniferous plantation.
35	NA	NA	NA	**Unclassified**	Recently clear-felled and too fragmented and modified to enable NVC survey to be undertaken.
36-37	NA	NA	NA	**Unclassified**	Coniferous plantation.
38	*Calluna vulgaris*	Heather	O	**M25 *Molinia caerulea-Potentilla erecta* mire**	
	Carex rostrata	Bottle Sedge	R		
	Erica tetralix	Cross-leaved Heath	O		
	Eriophorum angustifolium	Common Cottongrass	O		
	Hylocomium splendens	Glittering Wood-moss	F		
	Molinia caerulea	Purple Moor-grass	D		
	Myrica gale	Bog Myrtle	O		
	Pleurozium schreberi	Red-stemmed Feather-moss	R		
	Potentilla erecta	Tormentil	R		
	Sphagnum capillifolium	Acute-leaved Bog-moss	R		
	Sphagnum fallax	Flat-topped Bog-moss	R		
	Viola palustris	Marsh Violet	R		
39	NA	NA	NA	**M6c *Carex echinata-Sphagnum fallax/auriculatum* mire-*Juncus effusus* sub-community**	Frequent bare ground beneath existing cable lines but vegetated areas dominated by rushes, with *Polytrichum commune* and *Sphagnum* below.

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
40	*Agrostis stolonifera*	Creeping Bent	O	**M4 *Carex rostrata-Sphagnum fallax* mire**	Occurred with mosaic of M6c but generally area west of watercourse was dominated by bottle sedge, which was also abundant within the watercourse.
	Carex rostrata	Bottle Sedge	D		
	Filipendula ulmaria	Meadowsweet	R		
	Galium palustre	Marsh Bedstraw	O		
	Galium saxatile	Heath Bedstraw	R		
	Nardus stricta	Mat Grass	R		
	Polytrichum commune	Common Haircap	F		
	Potentilla erecta	Tormentil	O		
	Sphagnum fallax	Flat-topped Bog-moss	F		
	Sphagnum subnitens	Lustrous Bog-moss	R		
	Viola palustris	Marsh Violet	R		
41	NA	NA	NA	**M6c *Carex echinata-Sphagnum fallax/auriculatum* mire-*Juncus effusus* sub-community**	Occurred with mosaic of M4 but generally area east of watercourse was dominated by rushes.
42	NA	NA	NA	**Unclassified**	Developing birch and willow scrub growing over felled plantation.
43	*Calluna vulgaris*	Heather	R	**M4 *Carex rostrata-Sphagnum fallax* mire**	
	Carex rostrata	Bottle Sedge	D		
	Eriophorum angustifolium	Common Cottongrass	R		
	Juncus effusus	Soft Rush	O		
	Polytrichum commune	Common Haircap	F		
	Sphagnum auriculatum	Cow-horn Bog-moss	O		
	Sphagnum palustre	Blunt-leaved Bog-moss	O		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
44	*Cirsium palustre*	Marsh Thistle	O	**M6c *Carex echinata-Sphagnum fallax/auriculatum* mire-*Juncus effusus* sub-community**	
	Eriophorum angustifolium	Common Cottongrass	R		
	Hylocomium splendens	Glittering Wood-moss	O		
	Juncus bulbosus	Bulbous Rush	A		
	Juncus effusus	Soft Rush	A		
	Polytrichum commune	Common Haircap	O		
	Potentilla erecta	Tormentil	O		
	Sphagnum auriculatum	Cow-horn Bog-moss	R		
	Sphagnum fallax	Flat-topped Bog-moss	F		
	Sphagnum palustre	Blunt-leaved Bog-moss	O		
	Viola palustris	Marsh Violet	O		
45-48	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	Very species-poor.
49	*Aulacomnium palustre*	Bog Bead-moss	O	**M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire with some M2 *Sphagnum cuspidatum/fallax* bog pool community**	A narrow strip of bog vegetation along fence to west of existing power lines, which continues westwards beyond the fence. There were small pools filled with *Sphagnum cuspidatum* within this area. Species list is for M17 mire.
	Calluna vulgaris	Heather	F		
	Cladonia portentosa	A Cladonia Lichen	F		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum vaginatum	Hare's-tail Cottongrass	A		
	Molinia caerulea	Purple Moor-grass	F		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Myrica gale	Bog Myrtle	A		
	Pinus sylvestris	Scots pine seedlings	R		
	Pleurozium schreberi	Red-stemmed Feather-moss	O		
	Sphagnum capillifolium	Acute-leaved Bog-moss	A		
	Sphagnum cuspidatum	Feathery Bog-moss	O		
	Sphagnum papillosum	Papillose Bog-moss	A		
	Sphagnum tenellum	Soft Bog-moss	O		
	Trichophorum germanicum	Deergrass	F		
50	NA	NA	NA	**Unclassified**	Recently clear-felled and too fragmented and modified to enable NVC survey to be undertaken.
51	NA	NA	NA	**Unclassified**	Coniferous plantation.
52	*Calluna vulgaris*	Heather	O	**M20 *Eriophorum vaginatum* blanket and raised mire**	Dominated by *E. vaginatum,* spp. poor.
	Erica tetralix	Cross-leaved Heath	O		
	Eriophorum vaginatum	Hare's-tail Cottongrass	D		
	Sphagnum cuspidatum	Feathery Bog-moss	O		
	Sphagnum papillosum	Papillose Bog-moss	R		
	Trichophorum germanicum	Deergrass	O		
53	NA	NA	NA	**M6c *Carex echinata-Sphagnum fallax/auriculatum* mire-*Juncus effusus* sub-community**	
54	NA	NA	NA	**Unclassified**	Coniferous plantation, mostly pine & spruce to west of fence with understorey of *Molinea* with patches of soft rush and scattered bog myrtle. *Molinea* continues north along both sides of fence.
55-57	NA	NA	NA	**Unclassified**	Coniferous plantation.

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
58	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	Species-poor, with some *Juncus effusus* and *Myrica gale* patches.
59	NA	NA	NA	**Unclassified**	Coniferous plantation.
60	*Cirsium palustre*	Marsh Thistle	O	**M6c *Carex echinata-Sphagnum fallax/auriculatum* mire-*Juncus effusus* sub-community**	Rare *Sphagnum*, mostly carpets of jointed rush, with soft rush overtopping.
	Equisetum variegatum	Variegated Horsetail	R		
	Eriophorum angustifolium	Common Cottongrass	R		
	Eriophorum vaginatum	Hare's-tail Cottongrass	R		
	Hylocomium splendens	Glittering Wood-moss	O		
	Juncus articulatus	Jointed Rush	R		
	Juncus bulbosus	Bulbous Rush	A		
	Juncus effusus	Soft Rush	A		
	Molinia caerulea	Purple Moor-grass	O		
	Polytrichum commune	Common Haircap	F		
	Potomogeton polygonifolius	Bog Pondweed	O		
	Potentilla erecta	Tormentil	O		
	Ranunculus flammula	Lesser Spearwort	O		
	Sphagnum auriculatum	Cow-horn Bog-moss	R		
	Sphagnum capillifolium	Acute-leaved Bog-moss	R		
	Sphagnum fallax	Flat-topped Bog-moss	R		
	Sphagnum palustre	Blunt-leaved Bog-moss	R		
	Viola palustris	Marsh Violet	O		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
61	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	Species-poor along slopes below plantation.
62	NA	NA	NA	**Unclassified**	Coniferous plantation.
63	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	Species-poor
64	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	Species-poor along slopes below plantation.
65	NA	NA	NA	**Unclassified**	Coniferous plantation.
66	*Calluna vulgaris*	Heather	R	**M25 *Molinia caerulea-Potentilla erecta* mire**	Very wet.
	Cirsium palustre	Marsh Thistle	F		
	Eriophorum angustifolium	Common Cottongrass	R		
	Hylocomium splendens	Glittering Wood-moss	O		
	Juncus effusus	Soft Rush	O		
	Molinia caerulea	Purple Moor-grass	D		
	Pleurozium schreberi	Red-stemmed Feather-moss	O		
	Polytrichum commune	Common Haircap	O		
	Sphagnum auriculatum	Cow-horn Bog-moss	R		
	Sphagnum capillifolium	Acute-leaved Bog-moss	O		
	Sphagnum fallax	Flat-topped Bog-moss	R		
	Sphagnum palustre	Blunt-leaved Bog-moss	O		
	Sphagnum subnitens	Lustrous Bog-moss	R		
	Viola palustris	Marsh Violet	R		
67	NA	NA	NA	**Unclassified**	Small stand of partially fallen down birch and pine.

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
68	*Agrostis capillaris*	Common Bent	O	**M6c *Carex echinata-Sphagnum fallax/auriculatum* mire-*Juncus effusus* sub-community**	
	Eriophorum angustifolium	Common Cottongrass	O		
	Juncus bulbosus	Bulbous Rush	F		
	Juncus effusus	Soft Rush	A		
	Pohlia nutans	Nodding Thread-moss	O		
	Polytrichum commune	Common Haircap	A		
	Ranunculus flammula	Lesser Spearwort	R		
	Sphagnum auriculatum	Cow-horn Bog-moss	R		
	Sphagnum fallax	Flat-topped Bog-moss	O		
	Sphagnum palustre	Blunt-leaved Bog-moss	O		
	Viola palustris	Marsh Violet	O		
69	*Avenella flexuosa*	Wavy Hair-grass	O	**M25 *Molinia caerulea-Potentilla erecta* mire**	
	Calluna vulgaris	Heather	O		
	Deschampsia cespitosa	Tufted Hair-grass	R		
	Eriophorum angustifolium	Common Cottongrass	O		
	Hylocomium splendens	Glittering Wood-moss	O		
	Juncus effusus	Soft Rush	O		
	Molinia caerulea	Purple Moor-grass	D		
	Nardus stricta	Mat grass	R		
	Polytrichum commune	Common Haircap	O		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Salix repens	Creeping willow	O		
	Sphagnum capillifolium	Acute-leaved Bog-moss	R		
	Sphagnum fallax	Flat-topped Bog-moss	O		
	Sphagnum palustre	Blunt-leaved Bog-moss	O		
70-72	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	Similar species composition to Area 69.
73-74	*Aulacomnium palustre*	Bog Bead-moss	O	**M18a *Erica tetralix-Sphagnum papillosum* raised and blanket mire-*Sphagnum medium/divinum-Andromeda polifolia* sub-community**	
	Calluna vulgaris	Heather	A		
	Cladonia bellidiflora	Cladonia Lichen	R		
	Cladonia portentosa	Cladonia Lichen	A		
	Cladonia uncialis var. biuncialis	Cladonia Lichen	R		
	Dicranum scoparium	Broom Fork-moss	O		
	Drosera rotundifolia	Round-leaved Sundew	O		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum angustifolium	Common Cottongrass	R		
	Eriophorum vaginatum	Hare's-tail Cottongrass	A		
	Hylocomium splendens	Glittering Wood-moss	A		
	Lichenomphalia umbellifera	Lichen	R		
	Molinia caerulea	Purple Moor-grass	O		
	Myrica gale	Bog Myrtle	F		
	Odontoschisma sphagni	Bog-moss Flapwort	F		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Pinus sylvestris	Scots Pine	R		
	Pleurozium schreberi	Red-stemmed Feather-moss	O		
	Polytrichum commune	Common Haircap	R		
	Sphagnum capillifolium	Acute-leaved Bog-moss	A		
	Sphagnum cuspidatum	Feathery Bog-moss	O		
	Sphagnum medium	Magellanic Bog-moss	R		
	Sphagnum papillosum	Papillose Bog-moss	F		
	Sphagnum tenellum	Soft Bog-moss	O		
	Trichophorum germanicum	Deergrass	R		
75	NA	NA	NA	**Unclassified**	Coniferous plantation.
76	NA	NA	NA	**Unclassified**	Stand of immature conifers on top of small hill.
77	NA	NA	NA	**Unclassified**	Series of small mounds/hills with young conifers growing on top.
78	*Aulacomnium palustre*	Bog Bead-moss	O	**M19 *Calluna vulgaris-Eriophorum vaginatum* blanket mire**	At bottom of hill, vegetation was dominated by *Eriophorum vaginatum.*
	Avenella flexuosa	Wavy Hair-grass	R		
	Calluna vulgaris	Heather	O		
	Cladonia portentosa	Cladonia Lichen	F		
	Cladonia uncialis var. biuncialis	Cladonia Lichen	R		
	Dactylorhiza maculata	Heath Spotted-orchid	R		
	Drosera rotundifolia	Round-leaved Sundew	R		
	Erica tetralix	Cross-leaved Heath	O		
	Eriophorum vaginatum	Hare's-tail Cottongrass	A		
	Hylocomium splendens	Glittering Wood-moss	F		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Molinia caerulea	Purple Moor-grass	R		
	Myrica gale	Bog Myrtle	R		
	Narthecium ossifragum	Bog Asphodel	R		
	Pleurozium schreberi	Red-stemmed Feather-moss	F		
	Sphagnum capillifolium	Acute-leaved Bog-moss	F		
	Sphagnum papillosum	Papillose Bog-moss	R		
	Trichophorum germanicum	Deergrass	R		
79	*Aulacomnium palustre*	Bog Bead-moss	R	**M25 *Molinia caerulea-Potentilla erecta* mire**	A more species-rich area of M25.
	Calluna vulgaris	Heather	O		
	Cladonia portentosa	Cladonia Lichen	F		
	Deschampsia cespitosa	Tufted Hair-grass	R		
	Dryopteris carthusiana	Narrow Buckler-fern	O		
	Erica cinerea	Bell Heather	R		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum angustifolium	Common Cottongrass	R		
	Eriophorum vaginatum	Hare's-tail Cottongrass	R		
	Hylocomium splendens	Glittering Wood-moss	O		
	Juncus effusus	Soft Rush	R		
	Molinia caerulea	Purple Moor-grass	D		
	Myrica gale	Bog Myrtle	R		
	Pedicularis palustris	Marsh Lousewort	R		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Pleurozium schreberi	Red-stemmed Feather-moss	R		
	Polygala serpyllifolia	Heath Milkwort	R		
	Potentilla erecta	Tormentil	O		
	Racomitrium lanuginosum	Wooly Fringe-moss	O		
	Rumex acetosa	Common Sorrell	R		
	Sphagnum capillifolium	Acute-leaved Bog-moss	O		
	Sphagnum palustre	Blunt-leaved Bog-moss	R		
	Trichophorum germanicum	Deergrass	F		
80	*Dryopteris carthusiana*	Narrow Buckler-fern	O	**M6c *Carex echinata-Sphagnum fallax/auriculatum* mire-*Juncus effusus* sub-community**	Soft rush dominated channel running from near road to Feith Osdail stream.
	Eriophorum vaginatum	Hare's-tail Cottongrass	R		
	Galium saxatile	Heath Bedstraw	R		
	Juncus effusus	Soft Rush	D		
	Molinia caerulea	Purple Moor-grass	O		
	Myrica gale	Bog Myrtle	F		
	Polytrichum commune	Common Haircap	F		
	Sphagnum capillifolium	Acute-leaved Bog-moss	O		
	Sphagnum fallax	Flat-topped Bog-moss	O		
	Viola palustris	Bog Violet	R		
81	*Avenella flexuosa*	Wavy Hair-grass	R	**M18a *Erica tetralix-Sphagnum papillosum* raised and blanket mire-*Sphagnum***	Several hummocks of *Sphagnum austinii* present (a rare feature within Priority Peatlands assessment criteria).

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
				***medium/divinum-Andromeda polifolia* sub-community**	
	Calluna vulgaris	Heather	A		
	Carex pulicaris	Flea Sedge	R		
	Cladonia portentosa	Cladonia Lichen	A		
	Cladonia uncialis var. biuncialis	Cladonia Lichen	O		
	Drosera rotundifolia	Round-leaved Sundew	F		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum angustifolium	Common Cottongrass	R		
	Eriophorum vaginatum	Hare's-tail Cottongrass	A		
	Hylocomium splendens	Glittering Wood-moss	O		
	Molinia caerulea	Purple Moor-grass	R		
	Myrica gale	Bog Myrtle	R		
	Narthecium ossifragum	Bog Asphodel	F		
	Odontoschisma sphagni	Bog-moss Flapwort	F		
	Pleurozium schreberi	Red-stemmed Feather-moss	F		
	Polygala serpyllifolia	Heath Milkwort	R		
	Potentilla erecta	Tormentil	R		
	Racomitrium lanuginosum	Wooly Fringe-moss	F		
	Sphagnum auriculatum	Cow-horn Bog-moss	R		
	Sphagnum austinii	Austin's Bog-moss	R		
	Sphagnum capillifolium	Acute-leaved Bog-moss	F		
	Sphagnum cuspidatum	Feathery Bog-moss	O		
	Sphagnum medium	Magellanic Bog-moss	F		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Sphagnum papillosum	Papillose Bog-moss	F		
	Sphagnum subnitens	Lustrous Bog-moss	O		
	Sphagnum tenellum	Soft Bog-moss	O		
	Trichophorum germanicum	Deergrass	R		
82	*Carex rostrata*	Bottle Sedge	D	**M4 *Carex rostrata-Sphagnum fallax* mire**	
	Eriophorum angustifolium	Common Cottongrass	O		
	Juncus effusus	Soft Rush	F		
	Myrica gale	Bog Myrtle	R		
	Polytrichum commune	Common Haircap	F		
	Potentilla erecta	Tormentil	R		
	Sphagnum fallax	Flat-topped Bog-moss	O		
	Sphagnum palustre	Blunt-leaved Bog-moss	O		
	Succisa pratensis	Devil's-bit Scabious	O		
	Viola palustris	Marsh Violet	R		
83	*Calluna vulgaris*	Heather	A	**M19 *Calluna vulgaris-Eriophorum vaginatum* blanket mire**	
	Cladonia portentosa	Cladonia Lichen	F		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum angustifolium	Common Cottongrass	F		
	Eriophorum vaginatum	Hare's-tail Cottongrass	A		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Hylocomium splendens	Glittering Wood-moss	F		
	Molinia caerulea	Purple Moor-grass	R		
	Myrica gale	Bog Myrtle	R		
	Pleurozium schreberi	Red-stemmed Feather-moss	F		
	Polygala serpyllifolia	Heath Milkwort	R		
	Potentilla erecta	Tormentil	O		
	Racomitrium lanuginosum	Wooly Fringe-moss	R		
	Sphagnum capillifolium	Acute-leaved Bog-moss	F		
	Sphagnum cuspidatum	Feathery Bog-moss	O		
	Trichophorum germanicum	Deergrass	F		
84	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	Large expanse similar spp. to 79, with scattered *E. vaginatum, M. gale* and conifer seedlings.
85-86	NA	NA	NA	**Unclassified**	Coniferous plantation.
87	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	Similar to previous with scattered *M. gale* and *Calluna.*
88	*Agrostis capillaris*	Common Bent	A	**U4 *Festuca ovina-Agrostis capillaris-Galium saxatile* grassland**	Narrow strip around *Sorbus* stand. No *Molinia* present.
	Anthoxanthum odoratum	Sweet Vernal-grass	F		
	Calluna vulgaris	Heather	R		
	Carex flacca	Glaucous Sedge	R		
	Festuca ovina	Sheep's Fescue	F		
	Galium saxatile	Heath Bedstraw	F		
	Hylocomium splendens	Glittering Wood-moss	O		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Potentilla erecta	Tormentil	O		
	Rhytidiadelphus squarrosus	Springy Turf-moss	F		
89	*Sorbus aucuparia*	Rowan	R	**Unclassified**	Small stand of *Sorbus*.
	Sorbus sp.	Whitebeam	D		
90	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	*Molinia* dominated with some scattered *Deschampsia cespitosa, Juncus effusus, Myrica gale* and *E. vaginatum*. Small patches of rush dominated vegetation with *Sphagnum palustre, S. fallax* and *Polytrichum commune* (M6c) but too small to map separately.
91	NA	NA	NA	**Unclassified**	Coniferous plantation.
92	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	Small patch dominated by *Molinia*.
93	NA	NA	NA	**Unclassified**	Coniferous plantation.
94	*Calluna vulgaris*	Heather	F	**M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire**	Close match to M18a (*S. medium* present) but abundant *Trichophorum* present.
	Carex pulicaris	Flea Sedge	R		
	Cladonia portentosa	Cladonia Lichen	A		
	Cladonia uncialis var. biuncialis	Cladonia Lichen	O		
	Drosera anglica	Great Sundew	R		
	Drosera rotundifolia	Round-leaved Sundew	F		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum angustifolium	Common Cottongrass	O		
	Eriophorum vaginatum	Hare's-tail Cottongrass	F		
	Melampyrum pratense	Common Cow-wheat	O		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Myrica gale	Bog Myrtle	O		
	Narthecium ossifragum	Bog Asphodel	F		
	Sphagnum capillifolium	Acute-leaved Bog-moss	F		
	Sphagnum cuspidatum	Feathery Bog-moss	O		
	Sphagnum medium	Magellanic Bog-moss	R		
	Sphagnum papillosum	Papillose Bog-moss	A		
	Sphagnum tenellum	Soft Bog-moss	F		
	Trichophorum germanicum	Deergrass	A		
95	NA	NA	NA	**Unclassified**	Coniferous plantation.
96	NA	NA	NA	**Unclassified**	Farm buildings, hard standing and amenity grassland.
97	*Anthoxanthum odoratum*	Sweet Vernal-grass	R	**M25 *Molinia caerulea-Potentilla erecta* mire**	Narrow strip of Molinia dominated vegetation to south of Dalchork Power Station.
	Calluna vulgaris	Heather	O		
	Erica tetralix	Cross-leaved Heath	O		
	Eriophorum vaginatum	Hare's-tail Cottongrass	O		
	Hylocomium splendens	Glittering Wood-moss	O		
	Molinia caerulea	Purple Moor-grass	D		
	Myrica gale	Bog Myrtle	F		
	Polytrichum commune	Common Haircap	O		
	Potentilla erecta	Tormentil	O		
	Sphagnum palustre	Blunt-leaved Bog-moss	R		
	Viola palustris	Bog Violet	R		
98	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	Narrow strip of *Molinia* dominated vegetation along western side of access road to Dalchorck Power Station.

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
99	*Achillea millefolium*	Yarrow	O	**Unclassified**	Neutral grassland dominated by *Agrostis stolonifera*.
	Agrostis stolonifera	Creeping Bent	D		
	Anthoxanthum odoratum	Sweet Vernal-grass	R		
	Cirsium palustre	Marsh Thistle	O		
	Cynosurus cristatus	Crested Dog-s-tail	O		
	Deschampsia cespitosa	Tufted Hair-grass	R		
	Digitalis purpurea	Foxglove	O		
	Echium vulgare	Viper's Bugloss	R		
	Festuca rubra	Red Fescue	A		
	Holcus lanatus	Yorkshire-fog	R		
	Hypochaeris radicata	Cat's-ear	O		
	Leucanthemum vulgare	Oxeye Daisy	R		
	Lotus pedunculatus	Greater Bird's-foot Trefoil	R		
	Plantago lanceolata	Ribwort Plantain	R		
	Potentilla erecta	Tormentil	R		
	Prunella vulgaris	Selfheal	R		
	Ranunculus acris	Meadow Buttercup	R		
	Ranunculus repens	Creeping Buttercup	R		
	Rhinanthus minor	Yellow Rattle	R		
	Rumex obtusifolius	Broad-leaved Dock	O		
	Trifolium pratense	Red Clover	R		
	Trifolium repens	White Clover	O		
	Ulex europaeus	Gorse	R		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
100	NA	NA	NA	**Unclassified**	Recently planted broad-leaved woodland.
101	*Aulacomnium palustre*	Bog Bead-moss	R	**M18a *Erica tetralix-Sphagnum papillosum* raised and blanket mire-*Sphagnum medium/divinum-Andromeda polifolia* sub-community**	
	Calluna vulgaris	Heather	F		
	Carex pulicaris	Flea Sedge	R		
	Cladonia portentosa	Cladonia Lichen	A		
	Cladonia uncialis var. biuncialis	Cladonia Lichen	O		
	Drosera anglica	Great Sundew	R		
	Drosera rotundifolia	Round-leaved Sundew	F		
	Empetrum nigrum	Crowberry	R		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum angustifolium	Common Cottongrass	R		
	Eriophorum vaginatum	Hare's-tail Cottongrass	D		
	Hylocomium splendens	Glittering Wood-moss	O		
	Lichenomphalia umbellifera	A Lichen	R		
	Myrica gale	Bog Myrtle	O		
	Narthecium ossifragum	Bog Asphodel	F		
	Pleurozium schreberi	Red-stemmed Feather-moss	O		
	Racomitrium lanuginosum	Wooly Fringe-moss	R		
	Sphagnum capillifolium	Acute-leaved Bog-moss	A		
	Sphagnum cuspidatum	Feathery Bog-moss	O		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Sphagnum cuspidatum	Feathery Bog-moss	O		
	Sphagnum medium	Magellanic Bog-moss	F		
	Sphagnum papillosum	Papillose Bog-moss	F		
	Sphagnum tenellum	Soft Bog-moss	O		
	Trichophorum germanicum	Deergrass	O		
102	*Calluna vulgaris*	Heather	R	**M25 *Molinia caerulea-Potentilla erecta* mire**	Large expanse of species-poor *Molinia* dominated mire.
	Carex echinata	Star Sedge	O		
	Dactylorhiza maculata	Heath Spotted-orchid	R		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum angustifolium	Common Cottongrass	R		
	Eriophorum vaginatum	Hare's-tail Cottongrass	R		
	Hylocomium splendens	Glittering Wood-moss	F		
	Juncus effusus	Soft Rush	O		
	Molinia caerulea	Purple Moor-grass	D		
	Myrica gale	Bog Myrtle	O		
	Narthecium ossifragum	Bog Asphodel	R		
	Polytrichum commune	Common Haircap	R		
	Potentilla erecta	Tormentil	F		
	Sphagnum palustre	Blunt-leaved Bog-moss	F		
	Succisa pratensis	Devil's-bit Scabious	O		
103-104	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	Similar species to Area 102.

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
105	*Agrostis capillaris*	Common Bent	A	**U4 *Festuca ovina-Agrostis capillaris-Galium saxatile* grassland**	Narrow strip along watercourse.
	Anthoxanthum odoratum	Sweet Vernal-grass	O		
	Festuca ovina	Sheep's Fescue	F		
	Galium saxatile	Heath Bedstraw	F		
	Hylocomium splendens	Glittering Wood-moss	F		
	Hypochaeris radicata	Cat's-ear	O		
	Nardus stricta	Mat Grass	O		
	Pleurozium schreberi	Red-stemmed Feather-moss	O		
	Polygala serpyllifolia	Heath Milkwort	R		
	Polytrichum juniperinum	Juniper Haircap	R		
	Potentilla erecta	Tormentil	F		
	Rumex acetosella	Sheep's Sorrell	O		
106	*Avenella flexuosa*	Wavy Hair-grass	F	**H9 *Calluna vulgaris-Avenella flexuosa* heath**	Narrow strip along watercourse.
	Calluna vulgaris	Heather	D		
	Chamaenerion angustifolium	Rosebay Willowherb	O		
	Digitalis purpurea	Foxglove	R		
	Hylocomium splendens	Glittering Wood-moss	O		
	Hypnum jutlandicum	Heath Plait-moss	F		
	Pleurozium schreberi	Red-stemmed Feather-moss	R		
	Polytichum juniperinum	Juniper Haircap	R		
	Potentilla erecta	Tormentil	F		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
107	*Agrostis stolonifera*	Creeping Bent	O	**M23b *Juncus effusus/acutiflorus-Galium palustre* rush pasture-*Juncus effusus* sub-community**	
	Cirsium palustre	Marsh Thistle	O		
	Galium palustre	Marsh Bedstraw	O		
	Holcus lanatus	Yorkshire-fog	F		
	Juncus effusus	Soft Rush	D		
	Lotus pedunculatus	Greater Bird's-foot Trefoil	O		
	Poa trivialis	Rough Meadow-grass	F		
	Potentilla erecta	Tormentil	R		
	Ranunculus acris	Meadow Buttercup	F		
108	*Agrostis capillaris*	Common Bent	O	**MG6 *Lolium perenne-Cynosurus cristatus* grassland**	
	Anthoxanthum odoratum	Sweet Vernal-grass	R		
	Cerastium fontanum	Common Mouse-ear	F		
	Cirsium vulgare	Spear Thistle	O		
	Cynosurus cristatus	Crested Dog's-tail	A		
	Festuca rubra	Red fescue	F		
	Holcus lanatus	Yorkshire-fog	O		
	Hypochaeris radicata	Cat's-ear	R		
	Lolium perenne	Perennial Rye-grass	A		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Poa annua	Annual Meadow-grass	R		
	Ranunculus repens	Creeping Buttercup	F		
	Trifolium repens	White Clover	A		
	Urtica dioica	Common Nettle	R		
109	*Calluna vulgaris*	Heather	O	**M15 *Trichophorum germanicum-Erica tetralix* wet heath**	
	Cladonia portentosa	Cladonia Lichen	O		
	Cladonia uncialis var. biuncialis	Cladonia Lichen	R		
	Dactylorhiza maculata	Heath Spotted-orchid	R		
	Empetrum nigrum	Crowberry	R		
	Erica cinerea	Bell Heather	R		
	Erica tetralix	Cross-leaved heath	F		
	Eriophorum angustifolium	Common Cottongrass	O		
	Eriophorum vaginatum	Hare's-tail Cottongrass	R		
	Hylocomium splendens	Glittering Wood-moss	R		
	Juncus squarrosus	Heath Rush	O		
	Luzula multiflora	Heath Woodrush			
	Molinia caerulea	Purple Moor-grass	F		
	Myrica gale	Bog Myrtle	O		
	Narthecium ossifragum	Bog Asphodel	F		
	Pinguicula vulgaris	Common Butterwort	R		
	Pleurozia purpurea	Purple Spoonwort	R		
	Potentilla erecta	Tormentil	O		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Racomitrium lanuginosum	Wooly Fringe-moss	R		
	Sphagnum capillifolium	Acute-leaved Bog-moss	F		
	Sphagnum cuspidatum	Feathery Bog-moss	O		
	Sphagnum papillosum	Papillose Bog-moss	R		
	Sphagnum tenellum	Soft Bog-moss	R		
	Trichophorum germanicum	Deergrass	A		
	Vaccinium myrtillus	Bilberry	R		
110	NA	NA	NA	**M25 *Molinia caerulea-Potentilla erecta* mire**	Species-poor Molinia dominated area.
111	*Aulacomnium palustre*	Bog Bead-moss	O	**M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire**	
	Calluna vulgaris	Heather	O		
	Cladonia portentosa	A Cladonia Lichen	F		
	Erica tetralix	Cross-leaved Heath	F		
	Eriophorum angustifolium	Common Cottongrass	R		
	Eriophorum vaginatum	Hare's-tail Cottongrass	A		
	Molinia caerulea	Purple Moor-grass	O		
	Myrica gale	Bog Myrtle	O		
	Narthecium ossifragum	Bog Asphodel	F		
	Pleurozium schreberi	Red-stemmed Feather-moss	O		
	Potentilla erecta	Tormentil	O		
	Sphagnum capillifolium	Acute-leaved Bog-moss	A		
	Sphagnum cuspidatum	Feathery Bog-moss	O		

NVC Area	Latin Name	English Name	DAFOR	NVC Code	Notes
	Sphagnum papillosum	Papillose Bog-moss	A		
	Sphagnum tenellum	Soft Bog-moss	O		
	Trichophorum germanicum	Deergrass	A		
112				**M15 *Trichophorum germanicum*-*Erica tetralix* wet heath**	Similar species composition to Area 109.

Annex C NatureScot Priority Peatlands Template

Advising on carbon rich soils, deep peat and priority peatland habitats in development management - guidance for staff - 2023

				ASSESSMENT CRITERIA - Within a 250m of development footprint															
				Peat Depth (cm)		Criteria 1 Raised bog	Criteria 2 Montane bog	Criteria 3 Blanket bog											
Chleansaid				as shown in ES	as measured during NaturScot site visit	Raised bog present supporting typical bog vegetation	Montane bog present supporting typical bog vegetation	Within a continous unit of blanket bog (>25ha)	Blanket bog support vegetation capable of peat forming	Few drains/peat cutting?	Peat forming spp/low disurbance?	Natural surface pattern?	absence of invasion by woodland/ scrub?	Abundant *Sphag*-rich ridges	*Sphagnum-B.nana* ridges	*S.fuscum* or *S.austinii* hummocks ?*	Peat Mounds?	*Rhynch fusca*?	
						Yes is good Likely national interest	*Yes is good Possible national interest*	*Yes is good*	*Yes is good*	*Yes is good*				*Rare features. Yes is very good. No is neutral.*					
				depth >50 cm = carbon rich soil		*No -> check for other type of bog*	*No -> check for other type of bog*	*No -> advise on mitigation measures*		*Two or more yes = possible national interest*				*One or more yes = possible national interest*					
										No -> check rare features				*No -> advise on mitigation measures*					
NVC Area	Easting	Northing	NVC																assessment result
3			U4			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
4			H9			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
5			U20			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
6			U4			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
7			H9			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
8			U4			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
9			H9			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
10			H9			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
12			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
13			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
14			M6c/M3			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest

15			M25/M6c			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
16			M25/M6c			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
17			M15/M3/M6c			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
18			M15/M3/M6c			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
19			M15/M3/M6c			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
20			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
22			M15/M4			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
24			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
25			M6c/M4			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
26			M15			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
27			M15			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
28			H9			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
29			M17/M2			No	No	No	Yes	No	No	No	No	No	No	No	No	No	Good
38			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
39			M6c			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
40			M4			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
41			M6c			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
43			M4			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
44			M6c			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
45			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
46			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
47			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
48			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
49			M17/M2			No	No	No	Yes	No	No	No	No	No	No	No	No	No	Good
52			M20			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
53			M6c			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
58			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
60			M6c			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
61			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
63			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
64			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
66			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
68			M6c			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
69			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
70			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
71			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
72			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
73			M18a			No	No	No	Yes	No	No	No	No	No	No	No	No	No	Good
74			M18a			No	No	No	Yes	No	No	No	No	No	No	No	No	No	Good
78			M19			No	No	No	Yes	No	No	No	No	No	No	No	No	No	Good
79			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
80			M6c			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
81			M18a			No	No	No	Yes	No	No	No	No	No	No	No	Yes	No	No	Possible National Interest
82			M4			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
83			M19			No	No	No	Yes	No	No	No	No	No	No	No	No	No	Good
84			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
87			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
88			U4			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
90			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
92			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
94			M17			No	No	No	Yes	No	No	No	No	No	No	No	No	No	Good
97			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
98			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
101			M18a			No	No	No	Yes	No	No	No	No	No	No	No	No	No	Good
102			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
103			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
104			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
105			U4			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
106			H9			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
107			M23b			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
108			MG6			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest

109			M15			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
110			M25			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest
111			M17			No	No	No	Yes	No	No	No	No	No	No	No	No	No	Good
112			M15			No	No	No	No	No	No	No	No	No	No	No	No	No	Not a national interest