APPENDIX 6-4

BOTANICAL REPORT

Contents

1. INTRODUCTION

1.1 Introduction

MKO were commissioned to undertake detailed botanical surveys to provide an evaluation and assessments of the habitats occurring on site at the Proposed Carrow Wind Farm, Co. Tipperary. The detailed assessments focused on the habitats occurring within or immediately adjacent to the Proposed Project footprint. Botanical surveys were undertaken on the 19th, 20th and 21st of June 2024, with additional information on habitat mapping undertaken on numerous other dates in 2024, as detailed in Section 6.23 of Chapter 6 of the accompanying EIAR.

1.2 Statement of Authority

Field surveys were undertaken by Deepali Mooloo (BSc, MSc), Pádraig Desmond (BSc) and Stephanie Corkery (MSc). This report has been prepared by Deepali Mooloo and reviewed by Pádraig Desmond and Caroline Kelly.

Deepali Mooloo

Deepali Mooloo is an Ecologist at MKO, having joined the company in September 2023. She holds an M.Sc. (Hons) in Applied Coastal and Marine Management from University College Cork, where she specialized in spatial ecology, field skills, and drone photogrammetry. Deepali's expertise lies in ecology and field surveys, with experience in a range of multidisciplinary assessments. Since joining MKO, she has conducted walkover surveys, marsh fritillary surveys, mammal surveys, winter bird surveys, and botanical surveys, including detailed relevés of plant species in both coastal and terrestrial habitats. She is also skilled in habitat assessments, utilizing Fossitt's Guide to Habitats in Ireland and the ERICA database. Her professional experience includes preparing Appropriate Assessment Screening Reports (AASR), Feasibility Studies, Ecological Impact Assessments (EcIA), and Natura Impact Statements (NIS). She is proficient in detailed habitat and ecological constraints mapping using QGIS and has expertise in cartography using both QGIS and ArcGIS. In 2024, Deepali successfully completed the Marine Mammal Observer Course with IDWG. She also has prior experience working in coastal and marine environments in Mauritius.

Pádraig Desmond

Pádraig is a Project Ecologist with MKO with 5 years post graduate ecological experience, over 4 years of which have been in ecological consultancy. Pádraig holds a BSc (Hons) in Ecology and Environmental Biology from University College Cork. Pádraig took up his position with MKO in December 2021, prior to which he worked as a Junior Ecologist with Envirico. Through these consultancy roles Pádraig has gained excellent experience in producing ecological reports such as Natura Impact Statements, Ecological Impact Assessments, Biodiversity chapters, Invasive Species Management Plans, and Constraints Reports for a wide range of projects including small private developments to housing developments and renewable energy projects such as solar and wind farms. Prior to the above roles, Pádraig worked as a field ecologist for the Department of Conservation in New Zealand, where he developed a strong field-based skill set.

Pádraig's key strengths and areas of expertise are in terrestrial ecology, including vegetation surveys, habitat identification, invasive species surveys, mammal surveys, Appropriate Assessment and Ecological Impact Assessment. Pádraig is also skilled in GIS.

Caroline Kelly

Caroline is a Senior Ecologist with MKO with over nine years' experience in ecological consultancy and is a Full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Caroline holds a BSc in Environmental Biology from University College Dublin (UCD) and an MSc in Applied

Ecological Assessment from University College Cork (UCC). In addition, Caroline has completed an Advanced Diploma in Planning and Environmental Law from Kings Inns Dublin. Prior to taking up her position with MKO in June 2025, Caroline worked as a Principal Ecologist with Scott Cawley Ltd. Caroline has strong generalist field ecology skills and has undertaken a range of ecological surveys including habitat, bird (both breeding and wintering), invasive species and protected fauna surveys. She has strong technical reporting skills and has extensive experience in a range of ecological assessments including Appropriate Assessment and Ecological Impact Assessment. She has undertaken ecological assessments and surveys on a variety of project types (e.g. linear infrastructure projects, industrial, commercial, residential, recreational, tourism and renewable energy developments).

2. SURVEY METHODS

A total of 8 detailed relevés[1] were undertaken within representative habitats at each turbine base and associated Proposed Wind Farm infrastructure. However, where infrastructure was located within forestry monocultures, which presented low ecological value and was unlikely to conform to any Annex I habitat, no relevés were undertaken. The location of each relevé is provided on Figure 2-1.

Habitats were assessed and described using both Fossitt (Fossitt, 2000) and the Irish Vegetation Classification (IVC) (Perrin et al., 2018) system. Where habitats had the potential to correspond to Annex 1 habitat types, further detailed assessment of those habitats was also undertaken in line with the condition assessment methods outlined in Martin et al. (2018), while reference was also made to the EU interpretation manual (EC, 2013).

Relevés that were undertaken in grassland habitats followed guidelines set out in the following document:

- *O'Neill, F.H., Martin, J.R., Devaney, F.M. & Perrin, P.M. (2013) The Irish semi-natural grasslands survey 2007-2012. Irish Wildlife Manuals, No. 78. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Ireland*

Plant nomenclature for vascular plants follows '*New Flora of the British Isles*' (Stace, 2019), while mosses and liverworts nomenclature follow '*Mosses and Liverworts of Britain and Ireland - a field guide'* (British Bryological Society, 2010).

A fundamental requirement of the IVC is to "aid in definition and identification of EU Habitat Directive (92/43/EEC) Annex I habitats" and to 'inform the planning process, for example through environmental impact assessments'.

The Engine for Relevés to Irish Communities Assignment (ERICA) is a web application for assigning vegetation data to communities defined by the Irish Vegetation Classification (IVC). Data can be uploaded, checked for errors and analysed and the results can then be downloaded. ERICA works with both quantitative vegetation cover data (such as are recorded in relevés and other types of botanical recording plots) and presence/absence data, such as species lists. ERICA covers grasslands, woodland, duneland,

[1] *Relevés, or survey plots, included 2m x 2m (for grassland and peat habitats) or 10m x 10m (for woodland) sample areas within which all species and their percentage cover was recorded. Physical characteristics and Irish Grid reference were also noted for each relevé.*

heaths, bogs, fens, mires, freshwater, saline waters, rocky habitats, scrub, strandline, saltmarsh and weed communities (Perrin, 2019[2]).

The data collected from the botanical assessments was uploaded to ERICA, analysed and the resulting data downloaded.

The analysis procedure uses a clustering process to assign classification affinity to vegetation plots based on a degree of membership to each of the communities defined by the IVC. Table 2-1 details the categorizing types of plots utilizing the clustering analysis. This categorizing procedure was utilized to determine if the grassland plots within the study area had affinity to Annex I grassland and whether further assessment was required.

Table 2-1 Categorising types of plots using clustering analysis (after Wiser & de Cáceres, 2013[3]).

Plot Type	Definition
Assigned	The plot has membership ≥ 0.5 for one of the vegetation communities and therefore relates to the core definition of that vegetation community.
Unassigned	The plot has membership ≥ 0.5 for the noise class and is poorly represented by the current classification scheme
Transitional	The plot has membership < 0.5 for all vegetation communities and for the noise class. It falls within the scope of the current classification scheme but does not relate to the core definition of any of the vegetation communities.

Detailed relevés were undertaken within habitats which presented higher ecological value and had potential to conform to Annex I habitats. Detailed relevés were not undertaken in habitats which would not be impacted by the Proposed Project footprint, and within habitats which presented low ecological value and low species diversity.

[2] *Perrin, 2019, Engine for Relevés to Irish Communities Assignment (ERICA), Online, Available at: https://biodiversityireland.shinyapps.io/vegetation-classification/_w_ab62059c/manual.pdf, Accessed, 20/01/2026.*

[3] *Wiser, S.K., De Cáceres, M. (2013) Updating vegetation classifications: an example with New Zealand's woody vegetation, Journal of Vegetation Science, 24, 80-93.*

Figure 2-1 Relevé Location

3. RESULTS

The Proposed Project has been designed to maximise usage of existing internal roads and heavily modified habitats such as forestry. As such, the majority of the construction footprint is located within areas of Conifer Plantation (WD4), Recently felled woodland (WS5), Spoil and bare ground (ED2) and Recolonising bare ground (ED3).

3.1 Turbine 1

The hardstanding base associated with Turbine 1 is predominantly located within Conifer plantation (WD4), composed of Sitka spruce (*Picea sitchensis*), with smaller areas of the hardstanding proposed within an area of Wet grassland (GS4) and patches of gorse Scrub (WS1). Given the low ecological value of Conifer plantation, the representative relevé for this Turbine base was carried out within the Wet grassland (GS4) section, as presented in Table 3-1. The footprint of this component of the Proposed Project is shown in Plate 3-1 and Plate 3-2.

Table 3-1 Botanical Survey Results – Turbine 1

Relevé 1	ITM: *52.603265, -8.062927*	Date 10/09/2024
Species	Common Name	% Cover
Vascular Plants		
Juncus acutiflorus	*Sharp flowered rush*	2
Myosotis arvensis	*Forget me not*	2
Ranunculus repens	*Creeping buttercup*	5
Festuca rubra	*Red fescue*	5
Anthoxanthum odoratum	*Sweet vernal grass*	25
Holcus lanatus	*Yorkshire fog*	10
Juncus effusus	*Soft rush*	70
Rumex acetosa	*Sorrel*	1
Cirsium vulgare	*Bull thistle*	1
Jacobaea vulgaris	*Ragwort*	7
Alopecurus geniculatus	*Marsh foxtail*	5
Luzula campestris	*Field wood-rush*	0.5
Polygala vulgaris	*Milkwort*	1
Potentilla erecta	*Tormentil*	15
Succisa pratensis	*Devil's bit scabious*	7
Ulex europaeus	Gorse	7

Fossitt (2000) Habitat Classification	*GS4 Wet grassland*
IVC (Irish Vegetation Community classification)	GL2D - *Juncus effusus – Rumex acetosa* grassland
Affinity to Annex I habitat	No - This section of the Proposed Project was disturbed in nature due to signs of grazing, had relatively low diversity value, and typical indicator species of associated Annex I grasslands were absent. Therefore, this habitat does not conform to any Annex I habitat.

Plate 3-1 Example of the receiving habitat at Turbine 1

Plate 3-2 Example of the receiving habitat at Turbine 1

3.2 Turbines 2 and 3

Turbines 2 and 3 as well as their associated hardstanding, are located within areas of Conifer plantation (WD4) mainly composed of Sitka spruce (*Picea sitchensis*). Given the low species diversity, no relevé data was taken in these areas. The footprints of Turbines 2 and 3 are depicted in Plate 3-3 and Plate 3-4 accordingly.

Plate 3-3 Example of the receiving habitat at Turbine 2

Plate 3-4 Example of the receiving habitat at Turbine 3

3.3 Grassland south-west of Turbine 3

This grassland is located within the perimeter of the proposed new road layout, to the south-west of Turbine 3 and in proximity to the Substation. The grassland comprised of a species-rich Wet grassland (GS4). The species recorded within this habitat are presented in Table 3-2 below. The footprint of this component of the Proposed Project is depicted in Plate 3-5.

Table 3-2 Botanical Survey – Grassland south-east of Turbine 3

Relevé 2	ITM: 52.596438, -8.078900	Date 19/06/24
Species	Common Name	% Cover
Vascular Plants		
Succisa pratensis *	Devil's bit scabious	15
Orchidaceae sp. *	Orchid species	10
Potentilla erecta *	Tormentil	12
Anthoxanthum odoratum	Sweet vernal grass	20
Juncus conglomeratus *	Compact rush	30
Carex nigra *	Black sedge	7
Scorzoneroides autumnalis	Autumn Hawkbit	12
Carex panicea *	Carnation sedge	15
Carex flacca *	Glaucous sedge	5
Pedicularis sylvatica	Lousewort	7
Rumex acetosa	Common sorrel	10
Festuca rubra	Red fescue	20
Ranunculus acris	Meadow buttercup	25
Holcus lanatus	Yorkshire fog	15
Stachys arvensis	Field woundwort	2
Molinia caerulea *	Purple moor grass	15

Fossitt (2000) Habitat Classification	GS4 Wet grassland
IVC community classification	GL1C - *Molinia caerulea – Succisa pratensis* grassland
Affinity to Annex I habitat	Yes - Given the presence of 8 indicator species (denoted by *), including two high quality positive indicators (Orchid species and *Juncus conglomeratus*), this habitat conforms to the Annex I habitat, *6410 Molinia meadows*.

Plate 3-5 Example of the receiving habitat of species rich grassland south-west of Turbine 3

3.4 Turbine 4

Turbine 4, as well as its associated hardstanding, is located within a mosaic of young Conifer plantation (WD4) dominated by Sitka spruce (*Picea sitchensis*) and colonising *Juncus* Wet grassland (GS4). Small sections of willow/bramble scrub, establishing within the footprint of Turbine 4, were also recorded. The species recorded within this habitat are presented in Table 3-3 below. The footprint of Turbine 4 is indicated in Plate 3-6.

Table 3-3 Botanical Survey – Turbine 4

Relevé 3	ITM: 52.603779, -8.086530	Date 05/03/2024
Species	Common Name	% Cover
Vascular Plants		
Picea sitchensis	Sitka spruce	35
Ranunculus repens	Creeping buttercup	*5*
Cirsium vulgare	Bull thistle	*3*
Juncus effusus	Soft rush	*25*
Holcus lanatus	Yorkshire fog	*7*
Trifolium repens	White dover	*2*

Salix spp.	Willow	3
Ulex europaeus	Gorse	7
Angelica sylvestris	Wild Angelica	2
Rubus fruticosus agg	Bramble	7
Juncus conglomeratus **	Compact rush	10
Molinia caerulea *	Purple moor grass	2
Rumex acetosa	Common sorrel	2
Festuca rubra	Red fescue	0.5
Fossitt (2000) Habitat Classification	WD4 Conifer plantation	
IVC community classification	W15A - *Picea sitchensis* forest	
Affinity to Annex I habitat	No - Due to its highly modified nature, low species diversity, and the dominance of non-native species (Sitka spruce), this habitat does not meet the criteria for classification as an Annex I habitat. Although two positive indicator species of 6410 *Molinia meadows* were recorded in the area (denoted by *), one of which is considered a high-quality indicator species (denoted by **), the presence of only two indicator species is insufficient to justify classification as an Annex I habitat. Furthermore, the dominance of the non-native Sitka spruce provides additional justification for its exclusion from Annex I designation. Thus, this habitat does not conform to any Annex I habitat.	

Plate 3-6 Example of the receiving habitat at Turbine 4

3.5 Turbine 5

Turbine 5, and its associated hardstanding base, is located within habitat classified as Hedgerows (WL1)/ Scrub (WS1) in accordance with ERICA habitat classification system. Table 3-4 provides the botanical assessment undertaken within the footprint of Turbine 5 and its associated hardstands. The footprint of this component of the Proposed Project is depicted in Plate 3-7.

Table 3-4 Botanical Survey Results – Turbine 5

Relevé 4	ITM: 52.610373, -8.085728	Date 21/06/2024
Species	Common Name	% Cover
Vascular Plants		
Vaccinium myrtillus	Bilberry	*1*
Salix spp.	Willow	*50*
Ulex europaeus	Gorse	*20*
Pteridium aquilinum	Bracken	*10*
Rubus fruticosus agg.	Bramble	*20*
Acer pseudoplatanus	Sycamore	*5*
Fossitt (2000) Habitat Classification	WL1 Hedgerows / WS1 Scrub	
IVC community classification	*SC1D - Ulex europaeus – Rubus fruticosus agg. scrub*	
Affinity to Annex I habitat	No - This section of the Proposed Project site was classified as scrub, dominated primarily by bramble, gorse, and willow species. No typical indicator species of any Annex I habitat were recorded. Scrub vegetation could only potentially correspond to Annex I habitat type 5130 *Juniperus communis formations on heaths or calcareous grasslands*. However, the characteristic species associated with this Annex I habitat are absent from this section of the Proposed Project. Therefore, this scrub habitat does not conform to an Annex I habitat.	

Plate 3-7 Example of the receiving habitat at Turbine 5

3.6 Turbine 6

Turbine 6 is primarily located within Wet grassland (GS4) however the associated proposed hardstand is located within existing trails of Recolonising bare ground (ED3) habitat. Table 3-5 provides the botanical assessment undertaken within the footprint of Turbine 6. The footprint of this component of the Proposed Project is depicted in Plate 3-8 and Plate 3-9.

Table 3-5 Botanical Survey Results – Turbine 6

Relevé 5	ITM: 52.613741, -8.088433	Date 10/09/24
Species	Common Name	% Cover
Vascular Plants		
Festuca rubra	Red fescue	7
Juncus articulatus *	Jointed rush	15
Juncus acutiflorus *	Sharp flowered rush	10
Rubus fruticosus agg.	Bramble	5
Luzula multiflora *	Heath woodrush	7
Cirsium vulgare	Bull thistle	2
Sonchus arvensis	Perennial sowthistle	1
Ranunculus repens	Creeping buttercup	2
Epilobium spp.	Willowherb	2
Holcus lanatus	Yorkshire fog	7
Jacobaea vulgaris	Ragwort	1
Ulex europaeus	Gorse	2
Juncus effusus	Soft rush	15
Arrhenatherum elatius	False oat grass	5
Molinia caerulea *	Purple moor grass	10

Fossitt (2000) Habitat Classification	GS4 Wet grassland
IVC community classification	*GL1A - Juncus acutiflorus – Holcus lanatus* grassland
Affinity to Annex I habitat	No - This IVC community shows an affinity with Annex I habitat 6410 Molinia meadow. However, only 3 indicator species were recorded (denoted by *) with *Juncus acutiflorus* and *Juncus articulatus* counted as one in assessment, alongside two negative indicator species (*Cirsium vulgare* and *Jacobaea vulgaris*). In addition, less than 30% of the sward falls within the required 5–40 cm height range (Martin et al., 2018). Consequently, this area does not conform to an Annex I habitat.

Plate 3-8 Example of the receiving habitat at Turbine 6

Plate 3-9 Example of existing trails present within the hardstand of Turbine 6

3.7 Turbine 7

Turbine 7 is located entirely within Conifer plantation (WD4). Given the monoculture of conifer plantation, and associated low ecological value, no relevé was taken in this habitat. The footprint of Turbine 7 is depicted in Plate 3-10.

Plate 3-10 Example of the receiving habitat at Turbine 7

3.8 Turbine 8

Turbine 8, and its associated hardstand, is located within a mosaic of Conifer plantation (WD4) and Wet grassland (GS4). Table 3-6 provides the botanical assessment undertaken within the footprint of Turbine 8 and its associated hardstands. The footprint of this component of the Proposed Project is depicted in Plate 3-11 and plate 3-12.

Table 3-6 Botanical Survey Results – Turbine 8

Relevé 6	ITM: 52.605164, -8.097271	Date 20/06/24
Species	Common Name	% Cover
Vascular Plants		
Leucanthemum vulgare	Oxeye daisy	*55*
Epilobium spp.	Willowherb	*10*
Rubus fruticosus agg.	Bramble	*5*
Juncus effusus	Soft rush	*5*
Salix spp.	Willow	*15*
Prunella vulgaris	Self-heal	*2*
Trifolium repens	White clover	*10*
Trifolium dubium	Lesser trefoil	*10*
Tussilago farfara	Coltsfoot	*5*
Ranunculus acris	Meadow buttercup	*1*
Potentilla erecta	Tormentil	*1*
Lolium perenne	Perennial ryegrass	*1*
Anthoxanthum odoratum	Sweet vernal grass	*1*
Poa trivialis	Rough meadow grass	*1*
Ajuga reptans	Bugleweed	*1*
Ranunculus repens	Creeping buttercup	*1*

Geranium robertianum	Herb Robert	*1*
Holcus lanatus	Yorkshire fog	*20*
Taraxacum vulgaria	Dandelion	*1*
Deschampsia cespitosa	Tufted hair grass	*1*
Cynosurus cristatus	Crested dog's tail	*1*
Festuca rubra	Red fescue	*1*

Fossitt (2000) Habitat Classification	Mosaic of GS4 Wet grassland and WD4 Conifer plantation
IVC community classification	GL2B- *Juncus effusus – Holcus lanatus* grassland
Affinity to Annex I habitat	No – Given the highly modified nature resulting from conifer plantation (Sitka spruce), relatively low diversity value, and absence of typical indicator species of Annex I grasslands, this habitat does not conform to any Annex I habitat.

Plate 3-11 Example of the receiving habitat at Turbine 8

Plate 3-12 Example of the receiving habitat at the hardstand of Turbine 8

3.9 Turbine 9

The location of the proposed Turbine 9 comprised of a mosaic of Improved agricultural grassland (GA1) and Wet grassland (GS4). The species within this habitat are recorded in Table 3-7 below. The footprint of this component of the Proposed Project is depicted in Plate 3-13.

Table 3-7 Botanical Survey – Turbine 9

Relevé 7	ITM: *52.615394, -8.093031*	Date 10/09/2024
Species	Common Name	% Cover
Vascular Plants		
Ranunculus repens	Creeping buttercup	5
Ranunculus acris	Meadow buttercup	15
Trifolium repens	White clover	15
Rumex spp.	Dock	5
Holcus lanatus	Yorkshire fog	25
Agrostis spp.	Bentgrass	10
Cirsium spp.	Thistle	5
Lolium perenne	Perennial rye gras	30

Fossitt (2000) Habitat Classification	GA1 Improved agricultural grassland / GS4 Wet grassland
IVC community classification	GL2C - *Holcus lanatus – Lolium perenne grassland*
Affinity to Annex I habitat	No - This section of the Proposed Project was highly modified and disturbed in nature owing to its usage for agricultural purposes and evidence of grazing. The vegetation was also comprised of low species diversity, and typical indicator species of Annex I grasslands were absent. Therefore, this habitat does not conform to any Annex I habitat.

Plate 3-13 Example of the receiving habitat at Turbine 9

3.10 Turbines 10, 11 and 12

The location of the proposed Turbines 10, 11 and 12 fall within Conifer plantation (WD4) mainly composed of Sitka spruce (*Picea sitchensis*). Given the low species diversity, no relevé data was taken in these areas. The footprints of Turbines 10, 11 and 12 are depicted in Plate 3-14, Plate 3-15 and Plate 3-16 accordingly.

Plate 3-14 Example of the receiving habitat at Turbine 10

Plate 3-15 Example of the receiving habitat at Turbine 11

Plate 3-16 Example of the receiving habitat at Turbine 12

3.11 Turbine 13

The location of the proposed Turbine 13, and its associated hardstands, comprised primarily of Conifer plantation (WD4), dominated by Sitka spruce, and colonising *Juncus* Wet grassland (GS4). Small sections of gorse Scrub (WS1) establishing within the footprint of Turbine 13 were also recorded. The species within this habitat are recorded in Table 3-8 below. The footprint of Turbine 13 is indicated in Plate 3-17.

Table 3-8 Botanical Survey – Turbine 13

Relevé 8	ITM: 52.600799, -8.081461	Date 05/03/2024
Species	Common Name	% Cover
Vascular Plants		
Picea sitchensis	Sitka spruce	45
Ranunculus repens	Creeping buttercup	*5*
Cirsium vulgare	Bull thistle	*3*
Juncus effusus	Soft rush	*25*
Holcus lanatus	Yorkshire fog	*10*
Trifolium repens	White dover	*2*
Potentilla erecta	Tormentil	*5*
Ulex europaeus	Gorse	7
Angelica sylvestris	Wild Angelica	2
Deschampsia cespitosa	Tufted Hair-grass	2
Agrostis stolonifera	Creeping bent	*5*

Fossitt (2000) Habitat Classification	Mosaic of GS4 Wet grassland and WD4 Conifer plantation
IVC community classification	GL2B - *Juncus effusus – Holcus lanatus* grassland
Affinity to Annex I habitat	No – This section of the Proposed Project was dominated with soft rush and Sitka spruce, had relatively low diversity value, and absence of typical indicator species of Annex I grasslands. Therefore, this habitat does not conform to any Annex I habitat.

Plate 3-17 Example of the receiving habitat at Turbine 13

3.12 Turbine 14

The proposed Turbine 4, and its associated hardstands, is predominantly located within Conifer plantation (WD4) composed of Sitka spruce (*Picea sitchensis*) and Japanese larch (*Larix kaempferi).* Given the low species diversity and modified nature of the habitat, no relevé data was taken in this area.

Plate 3-18 Example of the receiving habitat at Turbine 14

3.13 Substation

The location of the proposed Substation comprised of a mosaic of Improved agricultural grassland (GA1) and Wet grassland (GS4). These sections of the Proposed Project were highly modified and disturbed in nature owing to their usage for agricultural purposes and evidence of grazing. The vegetation was also comprised of low species diversity, and indicator species of Annex I habitats were absent. Therefore, no relevé data was taken from these habitats. The footprint of the Substation is indicated in Plate 3-19.

Plate 3-19 Example of the receiving habitat at Substation.

3.14 New access roads

New access roads within the site are primarily within areas of Sitka spruce (*Picea sitchensis)* classified as Conifer plantation (WD4), Improved agricultural grasslands (GA1), Scrub (WS1), Spoil and bare ground (ED2) and Recolonising bare ground (ED3). The conifer forestry is mostly mature, while the forest floor is heavily shaded and species poor. In areas of young conifer plantation, colonising *Juncus* Wet grassland (GS4) and willow/bramble scrub (WS1) is established. No relevé data was taken from these habitats due to the dominance of Sitka spruce and/or general low diversity of flora.

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