



# **Botanical Study - Appendix 6-1**

Cooloo Wind Farm, Co. Galway





Client: Neoen

Project Title: Cooloo Wind Farm, Co. Galway

Project Number: 190723

Document Title: Botanical Survey

Document File Name: Appendix 6-1 Botanical Survey Report F -

2025.09.19 - 190723

Prepared By: MKO

Tuam Road Galway Ireland H91 VW84



Rev	Status	Date	Author(s)	Approved By
01	Draft	12/08/2025	CF/EF	RW
02	Draft	10/09/2025	EF	RW
03	Final	19/09/2025	EF	RW



## **Table of Contents**

2.	INTRODUCTION	4
	2.1 Introduction	4
	2.2 Survey Methods	
	2.3 Statement of Authority	4
3.	RESULTS	6
	3.1 Proposed Wind Farm Turbines	
	3.1.1 Turbine 1	
	3.1.2 Turbine 2	
	3.1.4 Turbine 4	
	3.1.5 Turbine 5	
	3.1.6 Turbine 6	
	3.1.7 Turbine 7	
	3.1.8 Turbine 8	
	3.2 Proposed Associated Wind Farm Infrastructure	
	3.2.1 Proposed Substation	
	3.2.2 Proposed Met Mast	
	3.2.3 Proposed Temporary Construction Compound	
	3.3 Proposed Road between T7 and T9	
	<ul> <li>Turbine Overrun Area at Site Entrance</li> <li>Turbine Delivery Accommodation at the N63/R332 Junction</li> </ul>	
	3.6 Peat and Spoil Repository Areas	
	3.6.1 Peat Repository Areas	
	3.6.1.1 Peat Repository Area 1 (PRA1)	42
	3.6.1.2 Peat Repository Area 2 (PRA2)	
	3.6.1.4 Peat Repository Area 4 (PRA4)	
	3.6.2 Spoil Repository Areas	48
	3.6.2.1 Spoil Repository Area 1 (SRA1)	
	3.6.2.2 Spoil Repository Area 2 (SRA2)	
	3.6.2.4 Spoil Repository Area 4 (SRA4)	52
	3.6.2.5 Spoil Repository Area 5 (SRA5)	
4.	CONCLUSION	55
5.	BIBLIOGRAPHY	56
	Table 3-1 Botanical Survey Results for T1	6
	Table 3-2 Botanical Survey Results for T2	
	Table 3-3 Botanical Survey Results for T3	
	Table 3-4 Botanical Survey Results for T4	
	Table 3-5 Botanical Survey Results for T5	
	Table 3-6 Botanical Survey Results for T6	
	Table 3-7 Botanical Survey Results for T7	
	Table 3-8 Botanical Survey Results for T8	
	Table 3-9 Botanical Survey Results for T9	21
	Table 3-10 Botanical Survey Results for the Proposed Construction Compound	23



Table 3-11 Botanical Survey Results for the Proposed Met Mast	25
Table 3-12 Botanical survey results for the proposed construction compound	27
Table 3-13 Botanical survey results for releve 1 on the proposed road between T7 and T9	30
Table 3-14 Botanical survey results for releve 2 on the proposed road between T7 and T9	32
Table 3-15 Botanical survey results for releve 3 on the proposed road between T7 and T9	34
Table 3-16 Botanical survey results for releve 4 on the proposed road between T7 and T9	36
Table 3-17 Botanical survey results for releve on the proposed turbine overrun area	38
Table 3-18 Botanical survey results for releve of the proposed turbine delivery accommodation area	40
Table 3-19 Botanical survey results for releve of the proposed PRA1	42
Table 3-20 Botanical survey results for releve of the proposed PRA2	43
Table 3-21 Botanical survey results for releve of the proposed PRA3	45
Table 3-22 Botanical survey results for releve of the proposed PRA4	46
Table 3-23 Botanical survey results for releve of the proposed SRA1	48
Table 3-24 Botanical survey results for releve of the proposed SRA2	49
Table 3-25 Botanical survey results for releve of the proposed SRA3	50
Table 3-26 Botanical survey results for releve of the proposed SRA4	52
Table 3-27 Botanical survey results for releve of the proposed SRA5	53
Plate 3-1 Receiving arable crops (BC1) habitat located in the footprint of Turbine 1	7
Plate 3-2 Receiving habitat (GAI) within the footprint of Turbine 2	8
Plate 3-3 Receiving habitat (GA1) within the footprint of Turbine 3	10
Plate 3-4 Receiving habitat (GAI) within the footprint of Turbine 4	12
Plate 3-5 Receiving habitat within the footprint of Turbine 5	14
Plate 3-6 Receiving habitat within the footprint of T6	16
Plate 3-7 Receiving habitat of Turbine 7	18
Plate 3-8 Receiving habitat within the footprint of Turbine 8	20
Plate 3-9 Receiving habitat within the footprint of Turbine 9	22
Plate 3-10 Receiving habitat in the footprint of the proposed substation	24
Plate 3-11 Receiving habitat of the proposed met mast location	26
Plate 3-12 Receiving habitat of Proposed Construction Compound	28
Plate 3-13 Receiving habitat at releve 1 at the proposed road between T7 and T9	31
Plate 3-14 Receiving habitat at releve 2 at the proposed road between T7 and T9	33
Plate 3-15 Receiving habitat at releve 3 at the proposed road between T7 and T9	35
Plate 3-16 Receiving habitat at releve 4 at the proposed road between T7 and T9	37
Plate 3-17 Receiving habitat at of the proposed turbine overrun area at the site entrance	39
Plate 3-18 Receiving habitat at of the proposed turbine delivery accommodation area	41
Plate 3-19 Receiving habitat at of the proposed turbine delivery accommodation area	41
Plate 3-20 Receiving habitat at of PRA1	43
Plate 3-21 Receiving habitat at of PRA2	44
Plate 3.99 Receiving habitat at of PRA3	46



Plate 3-23 Receiving habitat at of PRA4	47
Plate 3-24 Receiving habitat at of SRA1	49
Plate 3-25 Receiving habitat at of SRA2	50
Plate 3-26 Receiving habitat at SRA3	51
Plate 3-27 Receiving habitat at of SRA4	53
Plate 3-28 Receiving habitat at of SRA5	54
LIST OF FIGURES	
Figure 2-1 Relevé Locations	5



#### 2 INTRODUCTION

#### 2.1 Introduction

MKO were commissioned to undertake detailed botanical surveys to provide an evaluation and assessments of the habitats occurring on site at the proposed Cooloo Wind Farm, Co. Galway. The detailed assessments focused on the habitats occurring within the footprint of the Proposed Wind Farm. The detailed botanical surveys were undertaken on the 13<sup>th</sup> of July 2023, 2<sup>nd</sup> and 29<sup>th</sup> of August 2023, 5<sup>th</sup>, 18<sup>th</sup> and 22<sup>nd</sup> September 2023, 14<sup>th</sup> November 2024, 18<sup>th</sup> of September 2024,18<sup>th</sup> of June 2025 and on the 2<sup>nd</sup> of September 2025. Additional surveys to inform habitat mapping were undertaken on dates in 2022, 2023, 2024 and 2025.

#### 2.2 Survey Methods

A total of 27 relevés detailed were undertaken within the construction footprint within the study area. The location of each is provided on Figure 1-1.

Relevés that were undertaken in peatland habitats followed guidelines set out in the following documents:

- > Smith, G.F. & Crowley, W. (2020) The habitats of cutover raised bog. Irish Wildlife Manuals, No. 128. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland.
- Fernandez, F., Connolly K., Crowley W., Denyer J., Duff K. & Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals, No. 81. National Parks and Wildlife Service, Department of Arts, Heritage and Gaeltacht, Dublin, Ireland.

Additionally, relevés taken within grassland habitats followed the following guidelines:

Martin, J.R., O'Neill, F.H. & Daly, O.H. (2018), The monitoring and assessment of three EU Habitats Directive Annex I grassland habitats. Irish Wildlife Manuals, No. 102. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

All species were readily identifiable during the survey. Plant nomenclature for vascular plants follows 'New Flora of the British Isles' (Stace, 2010), while mosses and liverworts nomenclature follows 'Mosses and Liverworts of Britain and Ireland - a field guide' (British Bryological Society, 2010).

#### 2.3 Statement of Authority

This report has been prepared by Cuan Feely (BSc.) and Emily Fair (B.Sc., M.Sc.). Emily is an Ecologist with MKO and has over 4 years of professional experience. This report has been reviewed by Rachel Walsh (B.Sc., MCIEEM). Rachel has extensive experience in ecological consultancy and has undertaken numerous assessments covering a wide range of projects including wastewater treatment plants, wind farms, road and rail infrastructure and housing developments.

The baseline ecological surveys were undertaken by Emily Fair, Cathal Bergin (B.Sc.), Cora Twomey (B.Sc.), Brónagh Boylan (B.Sc.), Rudraksh Gupta (B.Sc., M.Sc.), Tom Peters (B.Sc., M.Sc.), Mairead Kavanagh (B.Sc.), Nora Szijarto (B.Sc., M.Sc.), Timothy O'Ceallaigh (B.Sc., MSc.), Caitrin Farren (B.Sc.), Cuan Feely (B.Sc.) and Matthew Kieran (BSc.).





## RESULTS

## **Proposed Wind Farm Turbines**

#### 3.1.1 **Turbine 1**

Turbine 1 is proposed to be located within a large, open field that is entirely dominated by a monoculture of Barley *(Hordeum vulgare)* crops. The receiving habitat is arable crops (BC1). The turbine hard stand is located on one of two existing field drains present crossing the field, and the larger field is bordered by hedgerows (WL1). Please see Table 3-1 for further detail.

Table 3-1 Botanical Survey Results for T1

Tuble of Boundaries curvey results for 11			
Relevé (2m x 2m)	Grid reference: M 55338 47584	Date 18/06/2025	
Species	Common Name	% Cover	
Vascular Plants			
Hordeum vulgare	Barley	100	
Fossitt (2000) Habitat Classification		Arable crops (BC1)	
IVC (Irish Vegetation Community classification)		None	
Affinity to Annex I habitat		No	





Plate 3-1 Receiving arable crops (BC1) habitat located in the footprint of Turbine 1

## 3.1.2 **Turbine 2**

Turbine 2 is located within a small wet field consisting of an improved agricultural grassland (GA1) habitat, bordered on all sides with hedgerows (WL1), drains (FW4) and fencing. This field is located directly adjoining a Cutover bog (PB4) habitat to the north and was likely drained and improved for agricultural purposes. The dominant species in this grassland habitat include Perennial Ryegrass (*Lolium perenne*), Creeping Buttercup (*Ranunculus repens*) and White Clover (*Trifolium repens*). Please see Table 3-2 for further detail.

Table 3-2 Botanical Survey Results for T2

1abie 5-2 botanicai Survey Resuits for 12				
Relevé (2m x 2m)	Grid reference: M 55652 48005	Date 02/09/2025		
Species	Common Name	% Cover		
Vascular Plants				
Lolium perenne	Perennial Ryegrass	65		
Ranunculus repens	Creeping Buttercup	25		
Alopecurus pratensis	Meadow Foxtail	10		
Trifolium repens	White Clover	15		
Holcus lanatus	Yorkshire Fog	20		



Rumex acetosa	Common Sorrel	3
Juncus effusus	Soft Rush	15
Cirsium vulgare	Spear Thistle	5
Trifolium pratense	Red Clover	8
Potentilla anserina	Silverweed	8
Potentilla erecta	Tormentil	<0.5
Fossitt (2000) Habitat Classificatio	Improved agricultural grassland	
,	(GA1)	
	GL2C Holcus lanatus - Lolium	
IVC (Irish Vegetation Communit	perenne	
, 0		
Affinity to Annex I habitat	No	



Plate 3-2 Receiving habitat (GA1) within the footprint of Turbine 2



#### 3.1.3 **Turbine 3**

Turbine 3 is within a wet, improved agricultural grassland field (GA1) bordered with hedgerows (WL1) and field drains (FW4). The field as well as the adjoining field to the north (separated by fencing and a drain) were grazed by cattle at the time of the survey. The dominant species within this grassland habitat include Perennial Ryegrass (*Lolium perenne*), White Clover (*Trifolium repens*), Soft rush (*Juncus effusus*) and Creeping Buttercup (*Ranunculus repens*). Please see Table 3-3 for further detail.

Table 3-3 Botanical Survey Results for T3

Table 3-3 Botanical Survey Results for 13			
Relevé (2m x 2m)	Grid reference: M 55608 48618	Date 02/09/2025	
Species	Common Name	% Cover	
Vascular Plants			
Lolium perenne	Perennial Ryegrass	70	
Holcus lanatus	Yorkshire Fog	40	
Juncus effusus	Soft Rush	20	
Ranunculus repens	Creeping Buttercup	15	
Rumex acetosa	Common Sorrel	5	
Trifolium repens	White Clover	10	
Trifolium pratense	Red Clover	8	
Potentilla anserina	Silverweed	5	
Cynosurus cristatus	Crested dog's tail	7	
Fossitt (2000) Habitat Classification		Improved agricultural grassland (GA1)	
IVC (Irish Vegetation Community classification)		GL2C Holcus lanatus - Lolium perenne	
Affinity to Annex I habitat		No	





Plate 3-3 Receiving habitat (GA1) within the footprint of Turbine  $\it 3$ 



#### 3.1.4 **Turbine 4**

Turbine 4 is entirely located within an improved agricultural grassland (GA1) field surrounded by hedgerows (WL1) along the east and west field boundaries. This field was grazed at the time of the survey. The dominant species within this grassland include Perennial Ryegrass (*Lolium perenne*) and Creeping Buttercup (*Ranunculus repens*). Please see Table 3-4 for further detail.

Table 3-4 Botanical Survey Results for T4

Table 3-4 Botanical Survey Results for T4			
Relevé (2m x 2m)	Grid reference: M 56213 48613	Date 02/09/2025	
Species	Common Name	% Cover	
Vascular Plants			
Lolium perenne	Perennial Ryegrass	70	
Holcus lanatus	Yorkshire Fog	20	
Ranunculus repens	Creeping Buttercup	15	
Trifolium repens	White Clover	10	
Bellis perennis	Common Daisy	10	
Galium palustre	Marsh Bedstraw	8	
Trifolium pratense	Red Clover	10	
Rumex acetosa	Common sorrel	<0.5	
Cirsium vulgare	Spear thistle	<0.5	
Fossitt (2000) Habitat Classification		Improved Agricultural Grassland (GA1)	
IVC (Irish Vegetation Community classification)		GL2C Holcus lanatus- Lolium perenne	
Affinity to Annex I habitat		No	





Plate 3-4 Receiving habitat (GA1) within the footprint of Turbine 4



#### 3.1.5 **Turbine 5**

Turbine 5 is located within a field that has been drained and subject to peat extraction. Surrounding fields to the east and west of the proposed turbine and hardstand are also being actively extracted. The area is dry and firm with bare peat present. The habitat found within this area is consistent with Cutover bog (PB4). Man-made drainage features (FW4) line the field boundaries, with a drain present beneath the proposed hardstand of T5. These are heavily vegetated with Brambles (Rubus fruticosus agg.), Willows (Salix spp.) and Meadowsweet (Filipendula ulmaria). The peatland habitat directly north of T5 has been drained but is not being actively extracted from.

The dominant species within this habitat include Ling Heather (*Calluna vulgaris*), Cross-leaved Heath (*Erica tetralix*), Purple Moor-grass (*Molinia caerulea*), White-beaked Sedge (*Rhynchospora alba*) and Carnation Sedge (*Carex panicea*). Please see Table 3-5 for further detail.

This area comprises degraded, dry cutover bog and does not correspond with Annex I habitat.

Table 3-5 Botanical Survey Results for T5

Table 5-5 Botanical Survey Results for 1			
Relevé (4m x 4m)	Grid reference: M 56243 49159	Date 18/09/2024	
Species	Common Name	% Cover	
Vascular Plants			
Molinia caerulea	Purple Moor-grass	22	
Erica tetralix	Cross-leaved Heath	22	
Calluna vulgaris	Ling Heather	40	
Eriophorum angustifolium	Common Cottongrass	10	
Narthecium ossifragum	Bog Asphodel	10	
Myrica gale	Bog Myrtle	10	
Rhynchospora alba	White-beaked Sedge	22	
Carex panicea	Carnation Sedge	22	
Drosera rotundifolia	Round-leaved Sundew	10	
Juncus bulbosus	Bulbous Rush	10	
Non-vascular Plants			
Sphagnum papillosum		2	
Additional relevé data as per Smith at al. 2020 <sup>1</sup>			
Sphagnum cover		2	

<sup>&</sup>lt;sup>1</sup> Smith, G.F. & Crowley, W. (2020) The habitats of cutover raised bog. Irish Wildlife Manuals, No. 128. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland



Bare peat cover	45
_	
Substrate firmness (firm, soft, very soft, quaking)	Firm
Moisture level (wet, intermediate, dry)	Dry
Soil type	Peat
F'4 (0000) II.1.'4 (1'C'.	Containing Book (DD 4)
Fossitt (2000) Habitat Classification	Cutover Bog (PB4)
	BG1B
IVC (Irish Vegetation Community classification)	Rhynchospora alba -
	Narthecium ossifragum
IWM 128 sub-community classification	Calluna vulgaris-bare peat
	cutover bog (BP1)
ACC A TILL.	- /
Affinity to Annex I habitat	No



Plate 3-5 Receiving habitat within the footprint of Turbine 5



#### 3.1.6 **Turbine 6**

Turbine 6 is located within a wet, Improved agricultural grassland (GA1) field. The field is sloped towards the south/east, with a hedgerow (WL1) located at the crest of the hill in the west. Hedgerows also (WL1) line the southern border of the field. Please see Table 3-6 for further detail.

Table 3-6 Botanical Survey Results for T6

Table 3-6 Botanical Survey Results for T6			
Relevé (2m x 2m)	Grid reference: M 55687 49673	Date 02/09/2025	
Species	Common Name	% Cover	
Vascular Plants			
Lolium perenne	Perennial Ryegrass	80	
Ranunculus repens	Creeping Buttercup	15	
Trifolium repens	White Clover	10	
Juncus effusus	Soft Rush	5	
Cerastium fontanum	Mouse-ear Chickweed	3	
Holcus lanatus	Yorkshire Fog	20	
Rumex acetosa	Common Sorrel	5	
Trifolium pratense	Red Clover	7	
Cynosurus cristatus	Crested Dogs-tail	10	
Anthoxanthum odoratum	Sweet vernal	3	
Poa trivialis	Rough Meadow grass	5	
Fossitt (2000) Habitat Classification		Improved Agricultural Grassland (GA1)	
IVC (Irish Vegetation Community classification)		GL3B Lolium perenne- Trifolium repens	
Affinity to Annex I habitat		No	





Plate 3-6 Receiving habitat within the footprint of T6



#### 3.1.7 **Turbine 7**

Turbine 7 is located within a Dry meadows and grass verges (GS2) grassland habitat. The field is bordered on all sides by hedgerows (WL1) and a field drains (FW4) crosses beneath the hard stand. The most abundant species within this habitat include Ribwort Plantain (*Plantago lanceolata*), Common Bent (*Agrostis capillaris*) and Yorkshire Fog (*Holcus lanatus*).

The likelihood of this habitat to correspond with the Annex I habitat *Lowland hay meadows* (Alopecurus pratensis, Sanguisorba officinalis) (6510) was considered<sup>2</sup>. However, no high-quality indicator species were recorded within this habitat, and the only positive indicator species, Ribwort Plantain (*Plantago lanceolata*) and red clover (*Trifolium pratense*) are common and widespread species. Therefore, this grassland does not correspond with any Annex I habitat type. Please see Table 3-7 for further detail.

Table 3-7 Botanical Survey Results for T7

Table 3-/ Botanical Survey Results for	17	
Relevé (2m x 2m)	Grid reference: M 55610 50485	Date 21/08/2024
Species	Common Name	% Cover
Vascular Plants		
Plantago major	Greater plantain	5
Plantago lanceolata	Ribwort Plantain	10
Ranunculus repens	Creeping Buttercup	8
Agrostis capillaris	Common Bent	40
Lathyrus pratensis	Meadow Vetch	3
Holcus lanatus	Yorkshire Fog	30
Juncus effusus	Soft Rush	<0.5
Trifolium pratense	Red Clover	10
Trifolium repens	White Clover	10
Stachys palustris	Marsh woundwort	<0.5
Fossitt (2000) Habitat Classification		Dry meadows and grassy verges (GS2)
IVC (Irish Vegetation Community classification)		GL4A Agrostis capillaris- Trifolium repens

.

<sup>&</sup>lt;sup>2</sup> Martin, J.R., O'Neill, F.H. & Daly, O.H. (2018), The monitoring and assessment of three EU Habitats Directive Annex I grassland habitats. Irish Wildlife Manuals, No. 102. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.





Plate 3-7 Receiving habitat of Turbine 7



#### 3.1.8 **Turbine 8**

Turbine 8 is located within an improved agricultural grassland (GA1) field surrounded by hedgerows (WL1) and treelines (WL2). The field has been entirely reseeded with Perennial rye grass *(Lolium perenne)* and lacked any other species diversity.

The field is adjoined by an uninhabited farmhouse and farm outbuildings (BL3) to the east, a hedgerow (WL1) to the south and northwest of the field and treelines (WL2) lining the west/northwest and southeast boundary. Please see Table 3-8 for further detail.

Table 3-8 Botanical Survey Results for T8

Table 3-8 Botanical Survey Results for T8			
Relevé (2m x 2m)	Grid reference: M 57029 49315	Date: 02/09/2025	
Species	Common Name	% Cover	
Vascular Plants			
Lolium perenne	Perennial Ryegrass	90	
Holcus lanatus	Yorkshire fog	15	
Ranunculus repens	Creeping Buttercup	5	
Trifolium pratense	Red Clover	5	
Trifolium repens	White Clover	5	
Urtica dioica	Nettle	<0.5	
Rumex acetosa	Common sorrel	<0.5	
Cirsium vulgare	Spear thistle	<0.5	
Fossitt (2000) Habitat Classification		Improved Agricultural Grassland (GA1)	
IVC (Irish Vegetation Community classification)		GL2C Holcus lanatus - Lolium perenne	
Affinity to Annex I habitat		No	





Plate 3-8 Receiving habitat within the footprint of Turbine 8



#### 3.1.9 **Turbine 9**

Turbine 9 is located within a wet agricultural grassland (GS4) field. The northwest of the field is bordered by a conifer plantation (WD4) and the Grange River (Grange(Galway)\_010), a lowland and depositing river (FW2). The southeast of the field is bordered by gappy hedgerows (WL1) containing Grey Willow (*Salix cinerea*), Goat Willow (*Salix caprea*), Bramble (*Rubus fruticosus* agg.) and Reed Canary Grass (*Phalaris arundinacea*). There is also a dry field drain (FW4) located adjoining the hedgerow. Please see Table 3-9 for further detail.

The potential for these wet grasslands to correspond with Annex I Molinia Meadow habitat was considered<sup>2</sup>. However, given the dominance of species such as soft rush, it was deemed that the grasslands do not correspond to the Annex I type.

Table 3-9 Botanical Survey Results for T9

Table 3-9 Botanical Survey Results for T9		
Relevé (2m x 2m)	Grid reference: M 56866 49848	Date 18/06/2025
Species	Common Name	% Cover
Vascular Plants		
Juncus effusus	Hard Rush	40
Holcus lanatus	Yorkshire Fog	60
Rumex obtusifolius	Broad-leaved Dock	5
Cirsium palustre	Marsh Thistle	30
Trifolium repens	White Clover	30
Rumex acetosella	Field Sorrel	5
Ranunculus repens	Creeping Buttercup	30
Fossitt (2000) Habitat Classification		Wet Grassland (GS4)
IVC (Irish Vegetation Community classification)		GL2C Holcus lanatus - Lolium perenne
Affinity to Annex I habitat		No





Plate 3-9 Receiving habitat within the footprint of Turbine 9  $\,$ 



## Proposed Associated Wind Farm Infrastructure

## 3.2.1 **Proposed Substation**

The proposed substation is located within improved agricultural grassland (GA1) located beside hedgerows of Gorse (*Ulex europaeus*) and Bramble (*Rubus fruticosus* agg.) and stone walls. The dominant species within this grassland include Common Bent (*Agrostis capillaris*), Perennial Ryegrass (*Lolium perenne*) Creeping Buttercup (*Ranunculus repens*). Please see Table 3-10 for further detail.

Table 3-10 Botanical Survey Results for the Proposed Construction Compound

Table 3-10 Botanical Survey Results for the Proposed Construction Compound			
Relevé (2m x 2m)	Grid reference: M 54989 48079	Date 18/09/2024	
Species	Common Name	% Cover	
Vascular Plants			
Agrostis capillaris	Common Bent	35	
Carex flacca	Glaucous Sedge	15	
Lolium perenne	Perennial Ryegrass	60	
Plantago lanceolata	Ribwort Plantain	5	
Ranunculus repens	Creeping Buttercup	20	
Rumex obtusifolius	Broad-leaved Dock	5	
Stellaria media	Chickweed	1	
Trifolium repens	White Clover	10	
-			
Fossitt (2000) Habitat Classification		Improved Agricultural Grassland (GA1)	
IVC (Irish Vegetation Community classification)		GL3B <i>Lolium perenne</i> – <i>Trifolium repens</i>	
Affinity to Annex I habitat		No	





Plate 3-10 Receiving habitat in the footprint of the proposed substation



## 3.2.2 **Proposed Met Mast**

The proposed met mast is located in a field of Improved agricultural grassland (GA1) bordering an existing road to its southwest. The dominant species within this grassland include Perennial Ryegrass (*Lolium perenne*) and Creeping Bent (*Agrostis stolonifera*). Please see Table 3-11 for further detail.

Table 3-11 Botanical Survey Results for the Proposed Met Mast

Table 3-11 Botanical Survey Results for the Proposed Met Mast		
Relevé (2m x 2m)	Grid reference: M 55163 47918	Date 02/09/2025
Species	Common Name	% Cover
Vascular Plants		
Lolium perenne	Perennial Ryegrass	70
Cirsium arvense	Creeping Thistle	10
Rumex obtusifolius	Broadleaved Dock	5
Holcus lanatus	Yorkshire Fog	30
Trifolium repens	White Clover	15
Trifolium pratense	Red Clover	5
Fossitt (2000) Habitat Classification		Improved Agricultural Grassland (GA1)
IVC (Irish Vegetation Community classification)		GL2C Holcus lanatus - Lolium perenne
Affinity to Annex I habitat		No





Plate 3-11 Receiving habitat of the proposed met mast location



#### 3.2.3 Proposed Temporary Construction Compound

The proposed construction compound is located within a field of Dry meadows and grassy verges (GS2). The field is bordered to the north by an immature Conifer plantation (WD4) containing species such as Sitka Spruce (*Picea sitchensis*), Sessile Oak (*Quercus petraea*), Silver Birch (*Betula pendula*) and Hawthorn (*Crataegus monogyna*). The dominant species within the grassland are Yorkshire Fog (*Holcus lanatus*), White Clover (*Trifolium repens*) and Creeping Buttercup (*Ranunculus repens*). The northwest corner (approx. 0.13ha) of the proposed compound is located within monoculture conifer forestry (WD4). Please see Table 3-12 for further detail.

Table 3-12 Botanical survey results for the proposed construction compound

Table 3-12 Botanical survey results for the proposed construction compound			
Relevé (2m x 2m)	Grid reference: M 54945 47226	Date 18/06/2025	
Species	Common Name	% Cover	
Vascular Plants			
Lolium perenne	Perennial Ryegrass	10	
Rumex obtusifolius	Broad-leaved Dock	4	
Holcus lanatus	Yorkshire Fog	35	
Trifolium repens	White Clover	25	
Ranunculus repens	Creeping Buttercup	20	
Stellaria graminea	Lesser Stitchwort	2	
Alopecurus pratensis	Meadow Foxtail	10	
Ranunculus acris	Meadow Buttercup	8	
Anthoxanthum odoratum	Sweet Vernal Grass	15	
Poa trivialis	Rough Meadow Grass	15	
Cynosurus cristatus	Crested Dogs-tail	8	
Carex hirta	Hairy Sedge	8	
Fossitt (2000) Habitat Classification		Dry meadows and Grassy verges (GS2)	
IVC (Irish Vegetation Community classification)		GL3B <i>Lolium perenne</i> – <i>Trifolium repens</i> (transitional)	
Affinity to Annex I habitat		No	





Plate 3-12 Receiving habitat of Proposed Construction Compound



## Proposed Road between T7 and T9

This proposed road crosses a section of bog habitat between the proposed T7 and T9. Smaller areas of cutover bog can be found along the road.

Habitats corresponding to cutover bog (PB4) are found along the proposed access road between T7 and T9. The margins of this bog have all been cut, with all bog margins classified as cutover bog (PB4). Many of these areas are still actively being extracted and are all heavily drained. Marginal habitat areas between the cutaway and high bog area, as well as uncut areas with the high bog that are proposed to accommodate the new access road between T7 and T9 were assessed by carrying out detailed relevés and habitat condition assessments below. Four relevés were taken within the marginal and high bog habitat areas, and of the four, the two marginal habitats were assessed as cutaway bog (PB4) based on the assessment criteria in IWM 128 (Smith & Crowley, 2020)<sup>3</sup>.

Relevé 1 corresponded to IWM 128 sub-communities: MS3 Molinia caerulea – Polygala serpyllifolia cutover bog and MS4 Cladonia portentosa–Trichophorum germanicum cutover bog. Relevé 4 corresponded closely to the IWM 128 sub community MS4 Calluna vulgaris – Sphagnum subnitens cutover bog. In light of this, relevé 1 and 4 do not conform to any Annex 1 habitats.

The uncut areas are surrounded by deep drains and extensive areas of cutover bog, with small pockets of bare peat present. The majority of these habitats are dry in nature, and the vegetation is typically dominated by abundant ling heather (*Calluna vulgaris*), bog asphodel (*Narthecium ossifragum*), bog myrtle (*Myrica gale*) cross-leaved heath (*Erica tetralix*). *Sphagnum* cover is limited throughout, with few hummocks, sparse pool and overall, relatively dry ground. No areas were identified as quaking. The ground became wetter and softer moving west to east through the bog, with small hummocks becoming more frequent. Uncut areas that have not been drained are limited in extent throughout this habitat, and areas of high Sphagnum areas are fragmented within this habitat. Relevés 2 and 3 were identified as corresponding to *High Sphagnum* communities as per IWM 1283. Therefore, the relevé data was subsequently assessed based on the criteria in the IWM 81 (Fernandez et al, 2014).

Based on the ecotopes criteria and active peat forming communities complex key, found in Appendix 2 of the IWM 81, relevé 2 corresponds to two ecotopes – (1) Sub-marginal ecotope Complex 9/7 and (2) Sub-central ecotope community complex 9/7/10. Relevé 3 was assessed based on the same criteria and the relevant ecotopes assigned to this habitat were Sub-central ecotope 10/9/3 and sub-central ecotope community complex 9/7/10.

Based on this condition assessment, the relevé data (below) as well as the IVC classifications and IWM 128/81 sub-community classification, it is likely that the habitat at releve 2 and 3 is a degraded raised bog habitat with small, fragmented areas of active raised bog. Therefore, based on the condition assessment described above and detailed releve data, the location of the proposed new floating road between T7 and T9 (approximately 285m of the proposed new floating access road) correspond to the Annex 1 habitat *Degraded raised bogs still capable of natural regeneration (7120)*.

Please see Table 3-13 - Table 3-16 below for further detail.

important habitat for Marsh Fritillary and considered of higher conservation interest.

<sup>&</sup>lt;sup>3</sup> According to Smith & Crowley (2020), an area of cutover bog must have Sphagnum cover of more than 40%, in addition to other criteria, to qualify as Active Raised Bog. As this is the threshold used for the High Sphagnum habitat group, it follows that an area of cutover should fall into the HS1, HS2 or HS3 habitat types to qualify as active raised bog. Additionally, according to Smith & Crowley (2020), MS4 habitats are not peat forming and therefore do not have any affinity to any Annex 1 habitats. MS3 is considered of moderate conservation interest. In cases where Succisa pratensis is present in significant abundance, it may be an



Table 3-13 Botanical survey results for releve 1 on the proposed road between T7 and T9

Relevé 1 (4m x 4m)	Grid reference: M 56422	Date 18/09/2024
	50063	, ,
Species	Common Name	% Cover
Vascular Plants		
Molinia caerulea	Purple Moor-grass	20
Schoenus nigricans	Black Bog Rush	5
Erica tetralix	Cross-leaved Heath	30
Мутіса gale	Bog Myrtle	87
Narthecium ossifragum	Bog Asphodel	15
Potentilla erecta	Tormentil	10
Eriophorum vaginatum	Hare's-tail Cottongrass	<5
Carex panicea	Carnation Sedge	<5
Menyanthes trifoliata	Bog Bean	5
Eriophorum angustifolium	Common Cottongrass	<5
Calluna vulgaris	Ling Heather	<5
Andromeda polifolia	Bog Rosemary	<5
Drosera rotundifolia	Round-leaved Sundew	<5
Non-vascular Plants		
Hypnum jutlandicum		10
Sphagnum medium		3
Sphagnum papillosum		20
Sphagnum capifollium		5
Sphagnum fallax		2
Odontoschisma sphagni		0.5
Additional relevé data as per Smith & Crowley, 2020 <sup>1</sup>		
Sphagnum cover		40.5
Bare peat cover		0
Substrate firmness (firm, soft, very soft, quaking)		Firm-soft



Moisture level (wet, intermediate, dry)	Intermediate
Soil type	Bog Peat
Fossitt (2000) Habitat Classification	Cutover bog (PB4)
IVC (Irish Vegetation Community classification)	BG2D Erica tetralix - Schoenus nigricans
IWM128 sub-community classification	MS3 Molinia caerulea – Polygala serpyllifolia cutover bog/MS4 Cladonia portentosa– Trichophorum germanicum cutover bog
Affinity to Annex I habitat	No <sup>3</sup>



Plate 3-13 Receiving habitat at releve 1 at the proposed road between T7 and T9



Table 3-14 Botanical survey results for releve 2 on the proposed road between T7 and T9

Relevé 2 (4m x 4m)	Grid reference: M 56400 50137	Date 18/09/2024
Species	Common Name	% Cover
Vascular Plants		
Rhynchospora alba	White Beak-sedge	15
Cladonia portentosa	Reindeer Lichen	15
Myrica gale	Bog Myrtle	15
Narthecium ossifragum	Bog Asphodel	20
Erica tetralix	Cross-leaved Heath	15
Calluna vulgaris	Ling Heather	35
Eriophorum vaginatum	Hare's-tail Cottongrass	25
Non-vascular Plants		
Polytrichum juniperinum		0.5
Odontoschisma sphagni		15
Sphagnum capillifolium		20
Sphagnum medium		2
Sphagnum papillosum		5
Sphagnum tenellum		5
Additional relevé data as per	Fernandez et al, 2014 <sup>4</sup>	
Sphagnum cover		47.5
Bare peat cover		0.5
Substrate firmness (firm, soft, very soft, quaking)		Soft
Moisture level (wet, intermediate, dry)		Dry
Soil type		Bog Peat
71		1 0

<sup>&</sup>lt;sup>4</sup> Fernandez, F., Connolly K., Crowley W., Denyer J., Duff K. & Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals, No. 81. National Parks and Wildlife Service, Department of Arts, Heritage and Gaeltacht, Dublin, Ireland



Fossitt (2000) Habitat Classification	Raised bog (PB1)
IVC (Irish Vegetation Community classification)	BG2B Erica tetralix - Andromeda polifolia
IWM 81 sub-community classification	Sub marginal ecotope 9/7 and Sub-central ecotope community complex 9/7/10
Affinity to Annex I habitat	Yes <sup>5</sup>



Plate 3-14 Receiving habitat at releve 2 at the proposed road between T7 and T9

<sup>&</sup>lt;sup>5</sup> The location of the proposed floating road between T7 and T9 is located within a habitat that likely corresponds to the Annex 1 habitat 7120 Degraded raised bogs still capable of natural regeneration. Therefore, by taking a conservative, precautionary approach, this habitat corresponds to the Annex 1 habitat 7120.



Table 3-15 Botanical survey results for releve 3 on the proposed road between T7 and T9

Relevé 3 (4m x 4m)	Grid reference: M 56487 49962	Date 18/09/2024	
Species	Common Name	% Cover	
Vascular Plants			
Erica tetralix	Cross-leaved Heath	10	
Cladonia portentosa	Reindeer Lichen	20	
Calluna vulgaris	Ling Heather	30	
Eriophorum angustifolium	Common Cottongrass	15	
Eriophorum vaginatum	Hare's-tail Cottongrass	15	
Narthecium ossifragum	Bog Asphodel	35	
Carex panicea	Carnation Sedge	3	
Andromeda polifolia	Bog Rosemary	5	
Non-vascular Plants			
Sphagnum papillosum		10	
Sphagnum capillifolium		20	
Sphagnum cuspidatum		3	
Odontoschisma sphagni		10	
Sphagnum tenellum		3	
Sphagnum rubellum		3	
Hypnum jutlandicum		10	
Sphagnum subnitens		10	
Additional relevé data as per Fe	ernandez et al, $2014^4$		
Sphagnum cover		69	
Bare peat cover		0	
Substrate firmness (firm, soft, very soft, quaking)		Soft	
Moisture level (wet, intermediate, dry)		Intermediate	
Soil type		Bog Peat	



Fossitt (2000) Habitat Classification	Raised bog (PB1)
IVC (Irish Vegetation Community classification)	BG2B Erica tetralix - Andromeda polifolia
IWM 81 sub-community classification	Sub-cental ecotope 10/9/3 and sub-central ecotope community complex 9/7/10
Affinity to Annex I habitat	Yes <sup>5</sup>



Plate 3-15 Receiving habitat at releve 3 at the proposed road between T7 and T9



Table 3-16 Botanical survey results for releve 4 on the proposed road between T7 and T9

Relevé 4 (4m x 4m)	Grid reference: M 56638	Date 18/09/2024
Releve 4 (4III x 4III)	49932	Date 10/03/2024
Species	Common Name	% Cover
Vascular Plants		
Erica tetralix	Cross-leaved Heath	15
Narthecium ossifragum	Bog Asphodel	80
Carex flacca	Glaucous Sedge	2
Trichophorum cespitosum	Deergrass	5
Calluna vulgaris	Ling Heather	25
Eriophorum angustifolium	Common Cottongrass	5
Carex panicea	Carnation Sedge	2
Eriophorum vaginatum	Hare's-tail Cottongrass	10
Andromeda polifolia	Bog Rosemary	0.5
Rhynchospora alba	White Beak-sedge	2
Cladonia portentosa	Reindeer Lichen	3
Non-vascular Plants		
Odontoschisma sphagni		10
Sphagnum capillifolium		15
Sphagnum cuspidatum		7
Sphagnum tenellum		5
Sphagnum rubellum		3
Polytrichum juniperinum		0.5
Hypnum jutlandicum		5
Additional relevé data as per Smith & Crowley, 2020Error! Bookmark not defined.		
Sphagnum cover		45.5
Bare peat cover		0
Substrate firmness (firm, soft, very soft, quaking)		Soft
Moisture level (wet, intermediate,	dry)	Dry



Soil type	Bog Peat
Fossitt (2000) Habitat Classification	Cutover Bog (PB4)
IVC (Irish Vegetation Community classification)	BG2B Erica tetralix - Andromeda polifolia
IWM 128 sub-community classification	MS4 Calluna vulgaris – Sphagnum subnitens cutover bog
Affinity to Annex I habitat	$No^3$



Plate 3-16 Receiving habitat at releve 4 at the proposed road between T7 and T9



#### **Turbine Overrun Area at Site Entrance** 3.4

The proposed turbine overrun area at the site entrance is located in an Improved agricultural grassland (GA1) bordered by a Treeline (WL2) to the southwest. The dominant species located within the grassland habitat includes Creeping Buttercup (Ranunculus repens), Perennial Ryegrass (Lolium perenne) and Yorkshire Fog (Holcus lanatus). The existing treeline will be permanently removed during the construction phase of the Proposed Project to accommodate the proposed turbine overrun at this location. Please see Table 3-17 for further detail.

Table 3-17 Botanical survey results for releve on the proposed turbine overrun area		
Relevé (2m x 2m)	Grid reference: M 53769 47127	Date 09/05/2024
Species	Common Name	% Cover
Vascular Plants		
Alopecurus pratensis	Meadow Foxtail	5
Dactylis glomerata	Cocks-foot	5
Holcus lanatus	Yorkshire Fog	30
Juncus effusus	Soft Rush	5
Lolium perenne	Perennial Ryegrass	30
Ranunculus repens	Creeping Buttercup	60
Rumex crispus	Curly Dock	5
Trifolium repens	White Clover	10
Non-vascular Plants	Willie Clover	10
Calliergonella cuspidata	Pointed Spear Moss	25
Fossitt (2000) Habitat Classification		GA1 – Improved Agricultural Grassland
IVC (Irish Vegetation Community classification)		GL2C - Holcus lanatus - Lolium perenne
Affinity to Annex I habitat		No





Plate 3-17 Receiving habitat at of the proposed turbine overrun area at the site entrance



3.5

# Turbine Delivery Accommodation at the N63/R332 Junction

The proposed turbine delivery accommodation is located within an area of Improved agricultural grassland (GA1) surrounded by a low growing Hawthorn (*Crataegus monogyna*) hedgerow at the N63/R332 Junction. The dominant species within this grassland habitat include Perennial Ryegrass (*Lolium perenne*), Broadleaved Dock (*Rumex obtusifolius*) and Common Sorrel (*Rumex acetosa*).

The hedgerow will be permanently removed during the construction phase of the Proposed Project in order to provide the turbine delivery accommodation area at this junction. Please see Table 3-18 for further detail.

Table 3-18 Botanical survey results for releve of the proposed turbine delivery accommodation area

Table 3-18 Botanical survey results for releve of the proposed turbine delivery accommodation area		
Relevé (2m x 2m)	Grid reference: M 55726 46371	Date 13/08/2024
Species	Common Name	% Cover
Vascular Plants		
Lolium perenne	Perennial Ryegrass	75
Cirsium arvense	Creeping Thistle	12
Rumex obtusifolius	Broadleaved Dock	22
Ranunculus repens	Creeping Buttercup	12
Leontodon saxatilis	Smooth Hawksbit	12
Holcus lanatus	Yorkshire Fog	12
Rumex acetosa	Common Sorrel	22
Fossitt (2000) Habitat Classification		GA1 – Improved Agricultural Grassland
IVC (Irish Vegetation Community classification)		GL2C - Holcus lanatus - Lolium perenne
Affinity to Annex I habitat		No





Plate 3-18 Receiving habitat at of the proposed turbine delivery accommodation area



Plate 3-19 Receiving habitat at of the proposed turbine delivery accommodation area



## **Peat and Spoil Repository Areas**

It is proposed to manage any excess overburden generated through construction activities locally within the Site, in identified 4 peat deposition areas and 5 spoil management areas. A Peat and Spoil Management Plan is provided in Appendix 4-2 of Chapter 4 Description. of this EIAR.

### 3.6.1 **Peat Repository Areas**

There are four locations proposed to accommodate peat repository areas throughout the Proposed Wind Farm. Detailed botanical relevés at each peat repository area are provided below In Table 3-19 – Table 3-22.

### 3.6.1.1 Peat Repository Area 1 (PRA1)

Table 3-19 Botanical survey results for releve of the proposed PRA1

THOSE O'TO DOMINION SHITTEY TESTING TOT TELET	Table 5-13 Bolanical survey Testilis for Televe of the proposed TRAT		
Relevé (2m x 2m)	Grid reference: M 55047 48272	Date 18/06/2025	
Species	Common Name	% Cover	
Vascular Plants			
Juncus effusus	Soft Rush	90	
Holcus lanatus	Yorkshire Fog	20	
Ranunculus repens	Creeping buttercup	5	
Rumex crispus	Curly dock	3	
Fossitt (2000) Habitat Classification		Wet grassland (GS4)	
IVC (Irish Vegetation Community classification)		GL2C, <i>Holcus lanatus – Lolium</i> perenne grassland (transitional)	
Affinity to Annex I habitat		No	





Plate 3-20 Receiving habitat at of PRA1

## 3.6.1.2 **Peat Repository Area 2 (PRA2)**

Table 3-20 Botanical survey results for releve of the proposed PRA2

Table 3-20 Dotaineal survey Testitis 101 Telev		
Relevé (2m x 2m)	Grid reference: M 56354 49172	Date 02/09/2025
Species	Common Name	% Cover
Vascular Plants		
Alopecurus pratensis	Meadow Foxtail	15
Potentilla anserina	Silverweed	5
Matricaria discoidea	Pineappleweed	10
Taraxacum officinale	Dandelion	8
Trifolium pratense	Red Clover	10
Persicaria maculosa	Redshank	5
Plantago lanceolata	Ribwort plantain	5
Carex echinata	Star sedge	2



Additional relevé data as per Smith & Crowley, 2020 <sup>1</sup>	
Bare peat cover	40%
Substrate firmness (firm, soft, very soft, quaking)	hard
Moisture level (wet, intermediate, dry)	dry
Soil type	peat
Fossitt (2000) Habitat Classification	Cutover Bog (PB4)
IVC (Irish Vegetation Community classification)	WE1F- Persicaria maculosa Polygonum aviculare (transitional)
IWM128 sub-community classification	BP2 - Eriophorum  angustifolium-bare peat cutover bog (transitional)
Affinity to Annex I habitat	No



Plate 3-21 Receiving habitat at of PRA2



# 3.6.1.3 **Peat Repository Area 3 (PRA3)**

Table 3-21 Botanical survey results for releve of the proposed PRA3

1able 3-21 Botanical survey results for releve of the proposed PKA3		
Relevé (2m x 2m)	Grid reference: M 55097 48157	Date: 18/06/2025
Species	Common Name	% Cover
Vascular Plants		
Spergula arvensis	Corn spurry	40
Holcus lanatus	Yorkshire Fog	8
Stachys palustris	Marsh woundwort	4
Persicaria maculosa	Redshank	4
Sisymbrium officinale	Hedge mustard	20
Amsinckia micrantha	Fiddleneck	8
Fossitt (2000) Habitat Classification		Recolonizing bare ground (ED3)
IVC (Irish Vegetation Community classification)		WE1F <i>Persicaria maculosa – Polygonum aviculare</i> weed community
Affinity to Annex I habitat		No





Plate 3-22 Receiving habitat at of PRA3

### Peat Repository Area 4 (PRA4) Table 3-22 Botanical survey results for releve of the proposed PRA4 3.6.1.4

Table 5-22 Dolanical survey results for refere of the proposed FICA4		
Relevé (2m x 2m)	Grid reference: M 55600 50373	Date 02/09/2025
Species	Common Name	% Cover
Vascular Plants		
Juncus effusus	Soft Rush	70
Holcus lanatus	Yorkshire Fog	25
Molinia caeruleae	Purple Moor Grass	20
Ranunculus repens	Creeping buttercup	8
Plantago lanceolata	Ribwort plantain	8
Cynosurus cristatus	Crested dogs tail	8
Persicaria maculosa	Redshank	3
Cirsium palustre	Marsh thistle	5



Trifolium repens	White Clover	15
Trifolium pratense	Red Clover	5
Fossitt (2000) Habitat Classification		Wet grassland (GS4)
IVC (Irish Vegetation Community classification)		GL2D - Juncus effusus-Rumex acetosa
Affinity to Annex I habitat		No



Plate 3-23 Receiving habitat at of PRA4



#### **Spoil Repository Areas** 3.6.2

There are five proposed locations to accommodate spoil repository areas throughout the Proposed Wind Farm. Detailed botanical relevés at each spoil repository area are provided below in Table 3-23 -**Table 3-27** 

### 3.6.2.1 Spoil Repository Area 1 (SRA1)

T 1 - (0 - 0 - )		D . company
Relevé (2m x 2m)	Grid reference: M 55909 50326	Date 02/09/20205
Species	Common Name	% Cover
Vascular Plants		
Juncus effusus	Soft rush	90
Molinia caerulea	Purple Moor grass	40
Potentilla erecta	Tormentil	7
Erica tetralix	Cross-leaved heath	8
Calluna vulgaris	Ling heather	10
Taraxacum officinale agg.	Dandelion	1
Fossitt (2000) Habitat Classification		Wet Grassland (GS4)
IVC (Irish Vegetation Community classification)		HE4E-Molinia caerulea- Calluna vulgaris- Erica tetralix
Affinity to Annex I habitat		No





Plate 3-24 Receiving habitat at of SRA1

# 3.6.2.2 **Spoil Repository Area 2 (SRA2)**

Table 3-24 Botanical survey results for releve of the proposed SRA2

Table 5-24 Botalical survey Testilis for Telev	o of the proposed of the	
Relevé (2m x 2m)	Grid reference: M 55593 50375	Date 21/08/2024
Species	Common Name	% Cover
Vascular Plants		
Plantago major	Greater plantain	5
Plantago lanceolata	Ribwort Plantain	10
Ranunculus repens	Creeping Buttercup	10
Agrostis capillaris	Common Bent	30
Lathyrus pratensis	Meadow Vetch	3
Holcus lanatus	Yorkshire Fog	30
Juncus effusus	Soft Rush	5
Trifolium pratense	Red Clover	10



Trifolium repens	White Clover	10
Stachys palustris	Marsh woundwort	1
Fossitt (2000) Habitat Classification		Dry meadows and grassy verges (GS2)
IVC (Irish Vegetation Community classification)		GIAA Agrostis capillaris- Trifolium repens
Affinity to Annex I habitat		No



Plate 3-25 Receiving habitat at of SRA2

# 3.6.2.3 **Spoil Repository Area 3 (SRA3)**

Table 3-25 Botanical survey results for releve of the proposed SRA3

2025



I alterna in annum	Danamaial Danamas	95
Lolium perenne	Perennial Ryegrass	93
Rumex obtusifolius	Broadleaved Dock	8
Ranunculus repens	Creeping Buttercup	15
Trifolium repens	White Clover	10
Cirsium palustre	Marsh thistle	<5
Matricaria discoidea	Pineappleweed	10
Holcus lanatus	Yorkshire fog	15
Fossitt (2000) Habitat Classification		Improved agricultural grassland (GA1)
IVC (Irish Vegetation Community classification)		GL3B <i>Lolium perenne</i> – <i>Trifolium repens</i> (transitional)
Affinity to Annex I habitat		No



Plate 3-26 Receiving habitat at SRA3



# 3.6.2.4 Spoil Repository Area 4 (SRA4)

Table 3-26 Botanical survey results for releve of the proposed SRA4

Table 3-26 Botanical survey results for rele	ve or the proposed 51014	
Relevé (2m x 2m)	Grid reference: M 56183 49113	Date 02/09/2025
Species	Common Name	% Cover
Vascular Plants		
-	Bare peat	100
Additional relevé data as per Smith & Crowley, 2020 <sup>Error! Bookmark not defined.</sup>		
Additional feleve data as per Simul & Crowley, 2020		
Bare peat cover		100%
Substrate firmness (firm, soft, very soft, quaking)		Firm
Moisture level (wet, intermediate, dry)		Dry
Soil type		Peat
Fossitt (2000) Habitat Classification		Cutover Bog (PB4)
IVC (Irish Vegetation Community classification)		N/A
IWM128 sub-community classification		BP3 – Bare Peat Cutover Bog
Affinity to Annex I habitat		No





Plate 3-27 Receiving habitat at of SRA4

# 3.6.2.5 **Spoil Repository Area 5 (SRA5)**

Relevé (2m x 2m)	Grid reference: M 54840 48163	Date 18/09/2024
Species	Common Name	% Cover
Vascular Plants		
Plantago major	Greater plantain	5
Lolium perenne	Perennial Ryegrass	20
Rumex obtusifolius	Broadleaved Dock	10
Ranunculus repens	Creeping buttercup	25
Trifolium repens	White Clover	10
Agrostis capillaris	Common bent grass	90
Stellaria media	Common chickweed	<5



Fossitt (2000) Habitat Classification	Improved agricultural grassland (GA1)
IVC (Irish Vegetation Community classification)	GL3B <i>Lolium perenne</i> – <i>Trifolium repens</i> (transitional)
Affinity to Annex I habitat	No



Plate 3-28 Receiving habitat at of SRA5



### 4. CONCLUSION

A description of relevés undertaken within and adjacent to the footprint of the Proposed Project has been provided within this report. An assessment of the potential Annex I status of habitats within the Proposed Project footprint has also been undertaken and presented.

The infrastructure footprint is dominated by improved agricultural grassland (GA1), with smaller habitat areas consisting of cutover bog (PB4), wet grassland (GS4), dry meadows and grassy verges (GS2), Recolonizing bare ground (ED3) and arable crops (BC1). Frequent habitats adjoining or adjacent to infrastructure include hedgerows (WL1), treelines (WL2) drains (FW4) and commercial conifer forestry (WD4).

As demonstrated by the relevés recorded and presented in Section 3.3 above, the proposed new floating access road between T7 and T9 will be located within a raised bog (PB1) habitat that likely conforms to the Annex I habitat *Degraded raised bogs still capable of natural regeneration (7120)*. However, the loss of this area will constitute only 0.18ha (0.54%) of the total raised bog habitat area within the Proposed Project.



### BIBLIOGRAPHY

Atherton, I., Bosanquet, S. & Lawley, M. eds (2010) *Mosses and liverworts of Britain and Ireland a field guide.* British Bryological Society, London

European Commission. (2013). Interpretation manual of European Union habitats -EUR 25. DG Environment \*Nature and Biodiversity. Brussels. Commission of the European Communities.

Fernandez, F., Connolly K., Crowley W., Denyer J., Duff K. & Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals, No. 81. National Parks and Wildlife Service, Department of Arts, Heritage and Gaeltacht, Dublin, Ireland.

Fossitt, J. A. (2000). A Guide to Habitats in Ireland. Dublin: The Heritage Council.

Martin, J.R., O'Neill, F.H. & Daly, O.H. (2018), The monitoring and assessment of three EU Habitats Directive Annex I grassland habitats. Irish Wildlife Manuals, No. 102. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill

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.

Smith, G.F. & Crowley, W. (2020) The habitats of cutover raised bog. Irish Wildlife Manuals, No. 128. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland

Stace, C (2010) New Flora of the British Isles. 3rd edn. Cambridge University Press, Cambridge, UK.