APPENDIX 6-4

BIODIVERSITY MANAGEMENT AND ENHANCMENT PLAN

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1. INTRODUCTION

1.1 Background

This Biodiversity Management and Enhancement Plan (BMEP) has been prepared by MKO in support of the Environmental Impact Assessment Report (EIAR) produced to accompany a planning application for a proposed wind farm development, referred to hereafter as the Proposed Project, in County Clare.

This BMEP has been prepared to outline the proposed biodiversity enhancement measures associated with the Proposed Project. This BMEP also outlines how the Proposed Project has been designed to offset any loss of habitats of local importance (higher value) or loss of faunal supporting habitat.

1.2 Statement of Authority

This report has been prepared by Pádraig Desmond and Ciarán McKenna and reviewed by Caroline Kelly and Patrick Manley.

Pádraig is a Project Ecologist with MKO with five years post graduate ecological experience, four 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.

Ciarán is a Project Ornithologist with MKO, bringing over 8 years of experience in ecological consultancy. Ciarán holds a BA (Hons) in Wildlife Biology and joined MKO in March 2018. Prior to this, he worked as a consultant ecologist with Malachy Walsh & Partners, where he completed numerous ecological surveys, including ornithological, habitat, and bat surveys, and conducted Appropriate Assessment screenings.

Ciarán specialises in managing ornithological monitoring for operational wind farms, overseeing large-scale surveys, and ensuring condition compliance. His key strengths and areas of expertise include ornithological survey methods, and species-specific surveys (e.g., barn owl, hen harrier, red grouse). He is also highly skilled in the use of QGIS for digital mapping, GenEst for mortality estimates, and regularly produces high-quality monitoring reports for clients. Since joining MKO, Ciarán has taken on the role of managing the ornithological operational monitoring projects across Ireland. He is responsible for liaising with clients, landowners, and multidisciplinary teams to ensure projects run smoothly and efficiently.

Ciarán plays an integral role within the operational monitoring team at MKO. His commitment to clear communication and collaboration ensures clients are kept up to date on all key findings and project developments.

Patrick is a Senior Ornithologist with MKO with over ten years' experience in environmental consultancy and is a Full member of the Chartered Institute of Ecology and Environmental

Management (CIEEM). Patrick holds BSc (Hons) in Geology from University College Dublin. Since joining MKO, Patrick has worked on wind farm projects, solar farm projects, residential developments, data centres, county council projects and National Parks and Wildlife Service projects. He specialises in ornithological consulting, including Environmental Impact Assessments and has specialist knowledge in designing, executing and project managing ornithological assessments, primarily in the renewable industry. Prior to joining MKO in August 2016, Patrick gained experience through his involvement in several bird conservation projects, including protected curlew, seabirds and waders. Within MKO, Patrick plays a large role in the management and confidence building of junior members of staff and works as part of a large multi-disciplinary team to produce EIAR chapters.

Caroline is a Senior Ecologist with MKO with over ten 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).

The baseline ecological surveys were conducted by MKO Ecologists Pat Roberts (BSc, MCIEEM), Corey Cannon (BSc., MSc), Pádraig Desmond, Deepali Mooloo (BSc., MSC.), Tim Murphy (BSc), Allan Mee (BSc.), Conor Geoghan (BSc.), Eoghan Phelan (BSc.), Fionn O'Donoghue (BSc.), John Curtain (BSc.), John Downes (BSc.), Jonah Gaine (BSc.), Jack Kennedy (BSc.), Jamie Quirke (BSc.), Louis De Vries (MSc.), Marcus Hogan (BSc.), Mike Sylvia (BSc.), Óisín Casasin (BSc.), Patrick Manley (BSc.), Susan Doyle (PhD), Seán O'Brien (BSc.), Tony Keanelly (BSc.), Tom Rae (BSc.), Zuzana Erosova (BSc.), Zak O'Connor (BSc.). All surveyors have relevant academic qualifications and are competent in undertaking the habitat and ecological assessments.

1.3 Objectives of the BMEP

The objectives of this BMEP are as follows:

- To provide biodiversity enhancement within the Site, by managing areas specifically for hen harrier, marsh fritillary, peat and wet grassland habitats and bats.
- To provide additional foraging areas and nesting opportunities for nesting and foraging birds, invertebrates, pollinator species, and mammals.
- To provide a management and monitoring plan to ensure the success of the proposed measures.
- To both offset the losses of ecologically important habitats required for the construction of the Proposed Project and to enhance additional lands for biodiversity, by creating new peatland and species diverse grassland habitat in place of forestry/intensive agricultural grasslands and planting new linear habitats, ensuring an overall net gain of important habitats for local species.
- To protect downstream National and European Sites from impacts from invasive species.
- To offset any *likely long-term significant negative effect* to foraging hen harrier within the Site.

Full details on the current ecological baseline of the Site are provided in Chapter 6 (Biodiversity) and Chapter 7 (Ornithology) of the EIAR.

1.4 Field Surveys

A comprehensive survey of the biodiversity within the Site was undertaken to inform the Chapter 6 (Biodiversity) and Chapter 7 (Ornithology) of the EIAR and are fully detailed in that chapter. Table 1-1 provides an overview of the surveys undertaken.

Table 1-1 Surveys carried out within the Site.

Survey Type	Dates
Multi-disciplinary walkover (incl. habitats)	• 6th of September 2024 • 12th of September 2024 • 4th of February 2025 • 9th of April 2025 • 14th of July 2025 • 15th of July 2025 • 16th of July 2025
Multi-disciplinary walkover – Biodiversity management and enhancement lands	• 9th of April 2025 • 10th of April 2025 • 3rd of February 2026 • 4th of February 2026
Detailed Botanical Surveys – Irish Vegetation Classification (IVC)	• 14th of July 2025 • 15th of July 2025 • 16th of July 2025
Badger/Mammal survey	• 3rd April 2025
Marsh fritillary habitat appraisal/larval web surveys	• 6th of September 2024 • 12th of September 2024 • 4th of February 2025 • 14th of July 2025 • 15th of July 2025 • 16th of July 2025
Bat Surveys	• Spring, Summer and Autumn 2024 Inclusive of transect, static and roost inspection surveys
Aquatic surveys (including otter)	• September 2025
Multi-disciplinary walkover – proposed 33kV underground cabling and TDR	• 10th of April 2025 • 16th July 2025
Hen harrier offsetting areas walkover	• 3rd December 2025 • 3rd of February 2026 • 4th of February 2026
Vantage point surveys	Between October 2020 and September 2025
Winter walkover surveys	
Breeding walkover surveys	
Hen harrier roost surveys	
Breeding raptor surveys	
Breeding woodcock surveys	
Breeding red grouse surveys	

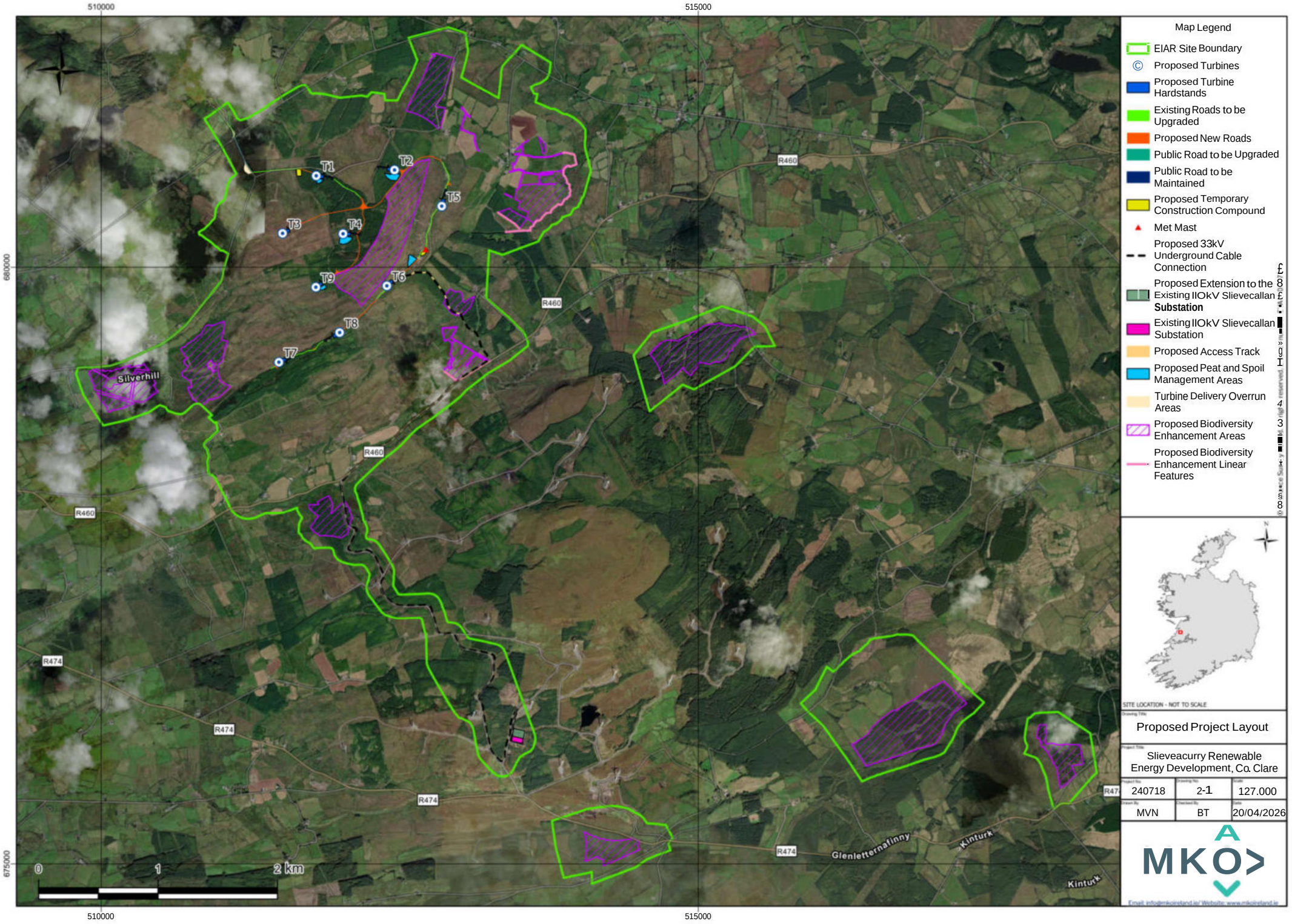
2. CHARACTERISTICS OF THE PROPOSED PROJECT

The Proposed Project comprises the construction of 9 No. wind turbines and all associated works. The Proposed Turbines installed on the site will have the following dimensions:

- Turbine Tip Height – 175 metres
- Hub Height – 100 metres
- Rotor Diameter - 150 meters

The overall layout of the Proposed Project is shown on Figure 4-1 of the EIAR. This drawing shows the Proposed Turbines location, the proposed 33kV underground cabling, the proposed permanent extension of the existing 110kV Slievecallan substation, proposed peat and spoil management areas, proposed met mast, proposed temporary construction compounds, internal roads layout and proposed entrance to the Site. The Proposed Wind Farm Site layout is shown below in Figure 2-1 for ease of reference.

Full details of the Proposed Project are provided in Chapter 4: Description of the submitted EIAR.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Map Legend
EIAR Site Boundary
Proposed Turbines
Proposed Turbine Hardstands
Existing Roads to be Upgraded
Proposed New Roads
Public Road to be Upgraded
Public Road to be Maintained
Proposed Temporary Construction Compound
Met Mast
Proposed 33kV Underground Cable Connection
Proposed Extension to the Existing IIOkV Slievecallan Substation
Existing IIOkV Slievecallan Substation
Proposed Access Track
Proposed Peat and Spoil Management Areas
Turbine Delivery Overrun Areas
Proposed Biodiversity Enhancement Areas
Proposed Biodiversity Enhancement Linear Features
SITE LOCATION - NOT TO SCALE
Proposed Project Layout
Slieveacurry Renewable Energy Development, Co. Clare
240718
2-1
127.000
MVN
BT
20/04/2026
MKO

3. ECOLOGICAL BASELINE

Multidisciplinary ecological surveys were undertaken by MKO between 2020 and 2026 as detailed within Chapter 6 (Biodiversity) and Chapter 7 (Ornithology) of the EIAR submitted as part of the application.

3.1 Habitats and Flora

The Proposed Project is located in an upland area dominated by peat habitat mosaics and commercial forestry, as well as managed and unmanaged agricultural grasslands.

A detailed account of the habitats and associated species recorded within the Site can be found in Chapter 6 (Biodiversity). The habitats listed in Table 3-1 were recorded within the Site:

Table 3-1 Habitats recorded within the Site

Habitat Name	Fossitt Code
Conifer plantation	WD4
Recently felled woodland	WS5
Upland blanket bog	PB2
Wet Heath	HH3
Cutover bog	PB4
Transition mire and quaking bog	PF3
Exposed siliceous rock	ER1
Wet grassland	GS4
Scrub	WS1
Hedgerow	WL1
Wet willow alder ash woodland	WN6
Spoil and bare ground	ED2
Buildings and artificial surfaces	BL3
Stone walls and other stonework	BL1
Eroding/upland rivers	FW1
Drainage ditches	FW4
Recolonising bare ground	ED3
Reed and large sedge swamp	FS1
Wet pedunculate oak–ash woodland	WN4

3.2 Protected Habitats and Flora

Peatland habitats were typically degraded due to grazing, drainage and historical turbary practices. However, as detailed in Appendix 6-2 – Botanical Assessment, areas of Annex I habitat, as per the Habitats Directive, have been identified within the Site. These consisted of the following:

- Northern Atlantic wet heaths with *Erica tetralix* [4010]
- Blanket bog [7130]

3.3 Protected Fauna

A number of protected fauna, or indications of such, were recorded within the Site (as listed below). The BMEP has been developed taking into account the protected fauna known to occur within the Site.

- Badger
- Pine marten
- Red squirrel
- Bat species
- Marsh fritillary
- Hen Harrier

3.4 Identification of Proposed Enhancement Areas

The following sections outline the methodology used to identify and quantify the quantum of land proposed for enhancement.

3.4.1 Proposed Hen Harrier Habitat Enhancement Areas

3.4.1.1 Background

This BMEP contains proposed measures designed to establish new and enhance existing hen harrier foraging habitat within the Proposed Enhancement Site, which will in turn offset the identified *likely long-term significant negative effect* to hen harrier as a result of (indirect) habitat loss due to the displacement from turbines during the lifetime of the Proposed Project. This comprehensive BMEP has been specifically designed to target the two key threats/pressures of *High Importance*, forestry and agricultural intensification, to offset for the potential for impacts associated with the Proposed Project which is noted as being of *Medium Importance* as per Article 12 reporting of the Birds Directive (Directive 2009/147/EC[1])). This document provides supporting information on how the hen harrier habitat loss was calculated, the rationale for selecting the Proposed Hen Harrier Habitat Enhancement Areas and further discussion on how the management prescriptions of the BMEP will be implemented.

It is noted that this BMEP includes for permanent deforestation to offset in large part for the effects on hen harrier associated with the 35-year lifetime of the Proposed Project. This BMEP will be implemented throughout the 35-year lifetime of the Proposed Project, which offers considerable conservation benefits and land use certainty to hen harrier in the long term. The Applicant has legal agreements with the landowners of the Proposed Hen Harrier Habitat Enhancement Areas that allows them to implement the land management measures outlined within the BMEP.

The hen harrier population in Ireland is in decline (Ruddock *et al.*, 2024). In Ireland hen harrier prefer to hunt within pre-thicket forestry (Wilson *et al.* 2006; Wilson *et al.* 2010; Irwin *et al.* 2012), heath/bog (Wilson *et al.* 2010) and rough/marginal or low-intensity agricultural grassland habitats (Wilson *et al.* 2006; Irwin *et al.* 2012). Passerines are the predominant source of prey for hen harrier in Ireland, with the meadow pipit being the most commonly taken prey species (O'Donoghue, 2010). The factors implicated in the population decline include human-related habitat modification and loss. Such habitat modification includes afforestation, agricultural intensification (e.g. drain blocking) (*High Importance*) and the proliferation of turbines (*Medium Importance*) in the upland regions inhabited by breeding hen harrier, as outlined in Article 12 Reporting 2013-2018 (EU, 2022) and reiterated in the Hen Harrier

[1] *https://www.npws.ie/status-and-trends-ireland%E2%80%99s-bird-species-%E2%80%93-article-12-reporting*

Threat Response[2] (NPWS, 2024). The Proposed Project is located within the West Clare non-designated regionally important area for hen harrier, where the population is declining.

The EU Biodiversity Strategy's objective is to put EU's biodiversity on the path to recovery by 2030 and that by 2050, all of the EU's ecosystems will be restored, resilient and adequately protected. It is noted that among other things, climate change is a key underlying driver of biodiversity loss. While the Proposed Project has the potential to negatively impact hen harrier, renewable energy plays a key role in counteracting climate change. It is this dichotomy that necessitates the consideration of reasonable alternatives that limit biodiversity loss while facilitating the construction of renewable energy developments such as the Proposed Project. To that end, the BMEP that accompanies this application aims to ensure that the construction of the Proposed Project is not at the expense of suitable hen harrier habitats. This opportunity for the wind farm industry to fund the restoration of hen harrier habitat was highlighted in the most recent National Survey of Breeding Hen Harrier (2022) report (Ruddock *et al.*, 2024). Section 4.6.7 states:

> "*There are opportunities for the wind energy industry to increase levels of land management certainty, and regulation/management of the activities within and surrounding windfarms (e.g. recreational users, dog walkers etc) and identify opportunities for the retention and restoration of habitats suitable for breeding (and wintering) hen harrier within and surrounding renewable energy developments.*"

At a national level the Hen Harrier Threat Response Plan identifies a need for innovation and collaboration to achieve the goals of the plan. Section 7 of the Hen Harrier Threat Response Plan sets out the actions that need to be taken to realise the objectives of the plan between 2024 and 2028. Collaboration with non-governmental stakeholders is identified as a key to the delivery of the plan.

The following BMEP is based on the best available scientific knowledge. A key premise of the BMEP is that forestry is a net negative for hen harrier. Commercial non-native forestry is generally accepted to be a habitat that is a net negative for hen harrier, as it is only available to hen harrier for a short period while young (i.e. pre thicket). The majority of commercial forestry's lifecycle is spent as closed canopy forestry, a habitat type of little to no ecological value to hen harrier. At a national level, as highlighted in Article 12 reporting, afforestation is a threat/pressure of high importance for hen harrier. The majority of forestry proposed for deforestation as part of this BMEP is semi-mature to mature and is therefore not useful to hen harrier. A key element of the BMEP is permanent deforestation to create optimal foraging habitat in its place for the benefit of hen harrier. While hen harrier do nest in forestry, deforestation as part of this BMEP will not significantly reduce the availability of nesting habitat within the non-designated, regionally important area for hen harrier. This non-designated, regionally important area is heavily afforested. Thus, removing forestry to create hen harrier foraging habitat is a net positive.

The Site is located at the northern edge of a non-designated regionally important area for hen harrier in West Clare (NPWS, 2021). Whilst approximately 35% of the habitat across much of the Site is mature forestry; open habitat within and adjacent to the Site were utilised by foraging hen harrier during the breeding season. A hen harrier territory was identified outside the Site, approximately 3.5km south of the nearest proposed turbine in 2024. See Confidential Appendix 7-5, Figure 7-5-4a for location details.

The potential for significant effects on hen harrier was assessed in full within the Ornithology chapter of the EIAR including potential loss of foraging habitat. It is noted in Section 7.5.2.2 of the EIAR the potential area of displacement (i.e. 131ha) is likely to result in a long-term significant negative effect (EPA, 2022). Therefore, taking into consideration this predicted impact and the significance of the study area to foraging hen harrier; a BMEP has been devised to create suitable foraging and breeding habitat for the species within the North and West Clare area. Potential significant effects predicted to result from the Proposed Project on hen harrier will be offset by the permanent removal of forestry (c. 123ha)

[2] *It is noted that this document does not rank the importance of these threats/pressures, although they are listed in the same order as here.*

and restoration of the underlying peatland habitats to provide more favourable habitat than will (potentially) be lost within the Site. In addition, it is proposed to manage c. 20 hectares of the farmland specifically to improve the value of the habitat for foraging hen harrier.

Following the permanent removal of approximately 123ha of forestry and the restoration of a further 20ha of agricultural land for the benefit of hen harrier, residual impacts of no greater than a negligible effect (EPA, 2022) on breeding hen harrier are predicted as a result of the Proposed Project.

3.4.1.2 Assessment of Potential Foraging (Indirect) Habitat Loss for Hen Harrier

The habitat loss calculation was undertaken with reference to the suitability of the habitats surrounding the proposed turbine locations and the likely distance turbines will be avoided by hen harrier.

The majority of the foraging recorded onsite was recorded during the breeding season and these records are likely associated with hen harrier breeding in the wider area. All proposed turbines within the Site are included in this habitat loss calculation as the location of these turbines overlaps with potential foraging habitat.

The decline in hen harrier populations in Ireland is a result of human-related pressures, in particular habitat modification and loss. Research carried out by the University College Cork identified a 'possible' reduction in breeding success within 1km of turbines (Wilson *et al.,* 2015). That is to say, where turbines occur within the core foraging range of the nest (2km) a habitat loss effect occurs rather than the avoidance itself extending to 1km (Wilson *et al.,* 2015). If it is assumed that hen harrier shows some level of displacement from turbines with the associated habitat loss, it reasonably follows that displacement would be more pronounced the closer the hen harrier was to the turbine. This was found to be the case in a multi-site study at twelve wind farms in Britain (Pearce-Higgins *et al.*, 2009). This study investigated the distance turbines were avoided by various species including hen harrier. It was reported that there was a reduction of 52.5% in hen harrier activity within 500m of operating wind turbines and significant displacement within 250m. As outlined in Section 7.5.2.2 of the EIAR, the rationale for this was as follows: Pearce-Higgins *et al.* (2009) noted significant displacement from turbines to 250m. Figure 1 of the 2009 paper shows that the reductions in hen harrier density mainly occur within 250m of a turbine. The statistical model from this paper assumes a linear relationship between bird density and distance from a turbine in 500m distance bands. This means that if the displacement effect extends for less than 500m the model is likely to overpredict the displacement effect at 500m. There is therefore a sound scientific basis for using a 250m buffer for estimating the hen harrier displacement effect, i.e. 131ha.

In this habitat loss calculation, it was assumed that there would be total displacement of a buffer zone within a 250m radius of the existing wind turbines (in line with the result of Pearce-Higgins *et al.*, 2009)[3]. The assumption of 100% displacement within 250m of wind turbines has been previously proposed in other recent planning permission applications for wind farm developments in the Republic of Ireland, following consultation with the National Parks and Wildlife Service, most notably on an application by DP Energy Ireland Ltd. for a six-turbine wind farm in Buttevant, Co. Cork (Pl. Ref. No. 13/05885) and an application for a 14 turbine development by Esk Windfarm Ltd. on a site near Nad, Co. Cork (Pl. Ref. No. 14/05602).

Closed canopy forestry does not provide suitable habitat for hen harrier. As such, areas of this habitat within 250m of the existing turbines have not been included in the calculation of habitat loss. As the

[3] *Pearce-Higgins et al., (2009) noted significant displacement from turbines to 250m. Figure 1 of Pearce-Higgins et al., (2009) shows that the reductions in hen harrier density mainly occur within 250m of a turbine. The statistical model from this paper assumes a linear relationship between bird density and distance from a turbine in 500m distance bands. This means that if the displacement effect extends for less than 500m the model is likely to overpredict the displacement effect at 500m. There is therefore a sound scientific basis for using a 250m buffer rather than 500m for estimating the hen harrier displacement effect.*

amount of closed canopy forestry within 250 metres of the existing turbines varies (over time) with the rotational cycle of forestry, calculations have been made using felling plans for the relevant folios taken from the Forestry Licence Viewer[4] to determine the average amount of potentially available hen harrier habitat that will be unavailable on an annual basis throughout the proposed 35-year operational lifetime of the Proposed Project.

3.4.1.3 The Rationale for Selecting Proposed Hen Harrier Habitat Enhancement Areas

The BMEP aims to provide an increase in the availability of passerine prey (e.g. meadow pipits) within the Proposed Hen Harrier Habitat Enhancement Areas to offset for the indirect loss of the foraging habitat due to displacement through the operational phase of the Proposed Project. The BMEP aimed to identify forestry plots, occurring on peatland that could be converted to more suitable upland habitats for foraging hen harrier by deforestation, and farmlands that offer opportunities to significantly improve their ecological value to foraging hen harrier.

The two key elements that have been addressed are the proportionality and ecological functionality of the Proposed Hen Harrier Habitat Enhancement Areas. The justification for the choice of these areas includes the following:

- To address the requirement for proportionality, Proposed Hen Harrier Habitat Enhancement Areas have been proposed at a 1:1 ratio. In addition, the approximate 123ha of deforested lands will be restored to supporting habitat for hen harrier prey species.
- Foraging habitat will be created to replace the foraging habitat indirectly lost through displacement.
- The BMEP ensures the removal of closed-canopy forestry, that would not otherwise have been felled until maturity (and subsequently replanted) without intervention. Noting afforestation as a threat/pressure of high importance (as per Article 12 reporting).
- The removal of forestry will reduce negative edge effects through deforestation, e.g. predation.
- There is a high likelihood of the Proposed Hen Harrier Habitat Enhancement Areas being encountered by hen harrier as breeding hen harrier occur locally. As extrapolated from the results of the most recent National Hen Harrier Survey (Ruddock *et al.*, 2024), hen harrier were confirmed to have bred in the 10km grid squares which overlap with the Proposed Hen Harrier Habitat Enhancement Areas in 2022 (i.e. R17. The remaining Proposed Hen Harrier Habitat Enhancement Areas are within the 10km grid square R18, which revealed no breeding pairs. Previous to this, hen harrier were confirmed to have bred in the 10km grid squares R17 as per the Bird Atlas 2007-11. There is therefore longstanding breeding activity locally.
- The selected farmland areas are located between the turbines and the identified breeding territory and are therefore closer than the foraging habitat that will be potentially lost at the Proposed Wind Farm Site. Most hunting by males and females is carried out within 2km and 1km, respectively, from nests (Arroyo *et al.*, 2014). There is one area proposed for permanent felling of forestry, located within 2km from the 2024 nest location. Location details are provided in Figure 7-5-4a of Confidential Appendix 7-5.

[4] https://flv.apps.services.agriculture.gov.ie/

3.4.2 Proposed Marsh Fritillary Enhancement Areas

Three areas for marsh fritillary enhancement have been identified within the Site: Areas 1 and 2 which currently present as agricultural Wet grassland (GS4) and Area 3, which currently presents as a degraded upland peatland mosaic.

This BMEP aims to provide adaptive enhancement measures for these areas and create and improve supporting habitat for marsh fritillary through promoting the presence and abundance of Devil's bit scabious, the larval food plant of marsh fritillary, and establish a suitable sward structure in grassland and peatland habitats. The aim of the BMEP is to first offset the minor losses of supporting marsh fritillary habitat required to facilitate the construction of the Proposed Project but to also ensure that the project results in an overall net gain in supporting habitats.

Areas 1 and 2 have been selected because, despite ongoing agricultural practices and resulting low sward heights, Devil's bit scabious was frequently recorded in these areas and therefore, have been considered viable areas to establish the targets of this BMEP.

Area 3 has been selected as part of this BMEP as it currently provides supporting marsh fritillary habitat but has been assessed as under grazed (see Section 6.4.2.3 of Chapter 6) and, therefore, given the correct management regime, is a suitable candidate for enhancement.

3.4.3 Proposed Peatland Enhancement Areas

The majority of the proposed peatland enhancement areas are subsidiary to the Proposed Hen Harrier Habitat Enhancement Areas discussed in Section 3.4.1, the selection rationale for which is already provided. However, specific lands have been identified within the Proposed Hen Harrier Habitat Enhancement Areas (Areas F and G) for the targeted restoration of blanket bog habitat. These areas have been identified for 'forest to bog' restoration as they are flat areas of the Site with deep peat depths and with poorly/sub-optimal performing forestry.

3.4.4 Proposed Linear Habitats

Areas within the Proposed Enhancement Site have been identified to plant/bolster new hedgerows and riparian corridors as biodiversity within these areas is likely to benefit from such measures. Agricultural lands are likely to support local populations of bat species, as well as badger and other protected mammals, who will benefit from increase connectivity and the provision of foraging corridors. The proposed riparian planting will, in addition to increased connectivity, will aid against impacts on water quality as a result of agricultural land uses, while also stabilizing the banks of the Knockacarn stream, as well as improving fisheries potential within watercourse.

Linear habitat enhancement within the Proposed Wind Farm Site has been avoided, as this is an upland peatland, which is typically devoid of such features.

3.4.5 Existing Baseline Conditions

Habitat surveys of the Proposed Enhancement Site were undertaken in December 2025. As shown in Figure 4-1 and Figure 4-2, the Proposed Hen Harrier Habitat Enhancement Areas are divided into ten areas of conifer plantation, referred to as Areas A, B, C, D, E, F, G, H, I and J. Additionally, there are two areas of farmland proposed for hen harrier enhancement, referred to as Area 1 and Area 2 and one area of farmland proposed for marsh fritillary enhancement, referred to as Area 3. Descriptions of each of the Proposed Hen Harrier Habitat Enhancement Areas is outlined below.

3.4.5.1 Forestry Descriptions

It is proposed to permanently fell 123 hectares of forestry and to restore the underlying peatland. These forestry blocks are further described in Section 6.5.1.4 of Chapter 6. These compensation lands consist of ten forestry blocks. The composition of these forestry blocks is outlined below:

- Area A (12.69 ha) The dominant habitat recorded within this parcel of land is mature Conifer plantation (WD4). The stand is structurally simple and highly homogeneous, characterised by a dense single-layered canopy, planted at a high density. The forest floor exhibits minimal understory development due to limitations regarding light penetration and a uniform layer of needle litter.
- Area B (12.55 ha) The dominant habitat recorded within this parcel of land is immature Conifer plantation (WD4), with setbacks from powerlines and dwellings. The stand is characterised by high density planting and a young forming canopy, which results in a uniform structurally simple environment. The forest floor exhibits minimal understory development due to limitations regarding light penetration and a uniform layer of needle litter. There are two linear powerline setback corridors introducing a distinct grassy zone interspersed with scrub species comprising mainly of gorse and brambles.
- Area C (17.32 ha) The dominant habitat recorded within this parcel of land is immature Conifer plantation (WD4). The stand is characterised by high density planting and a young forming canopy, which results in a uniform structurally simple environment. The forest floor exhibits minimal understory development due to limitations regarding light penetration and a uniform layer of needle litter.
- Area D (8.39 ha) The dominant habitat recorded within this parcel of land is Recently felled woodland (WS5) of commercial forestry awaiting replanting. The area exhibits a complete absence of vertical structure and is characterised by ground heterogeneity. The ground surface is dominated by logging residue, exposed soil in areas of machine tracking, and a developing cover of pioneer herbaceous species.
- Area E (3.35 ha) The dominant habitat recorded within this parcel of land is mature Conifer plantation (WD4). The stand is structurally simple and highly homogeneous, characterised by a dense single-layered canopy, planted at a high density. The forest floor exhibits minimal understory development due to limitations regarding light penetration and a uniform layer of needle litter.
- Area F (31.14 ha) The dominant habitat recorded within this parcel of land is mature commercial forestry. The stand is structurally simple and highly homogeneous, characterised by a dense single-layered canopy, planted at a high density. The forest floor exhibits minimal understory development due to limitations regarding light penetration and a uniform layer of needle litter.
- Area G (7.3 ha) The dominant habitat recorded within this parcel of land is immature Conifer plantation (WD4), with setbacks from powerlines and dwellings. The stand is characterised by high density planting and a young forming canopy, which results in a uniform structurally simple environment. The forest floor exhibits minimal understory development due to limitations regarding light penetration and a uniform layer of needle litter. The centre of the area exhibits stunted growth however the forest floor remains underdeveloped.
- Area H (7.89 ha) The dominant habitat recorded within this parcel of land is Recently felled woodland (WS5) of commercial forestry awaiting replanting. The area exhibits a complete absence of vertical structure and is characterised by ground heterogeneity. The ground surface is dominated by logging residue, exposed soil in areas of machine tracking, and a developing cover of pioneer herbaceous species.
- Area I (21 ha) The dominant habitat recorded within this parcel of land is mature Conifer plantation (WD4). The stand is structurally simple and highly homogeneous, characterised by a dense single-layered canopy, planted at a high density. The forest

floor exhibits minimal understory development due to limitations regarding light penetration and a uniform layer of needle litter.

- Area J (1.69 ha) The dominant habitat recorded within this parcel of land is mature Conifer plantation (WD4). The stand is structurally simple and highly homogeneous, characterised by a dense single-layered canopy, planted at a high density. The forest floor exhibits minimal understory development due to limitations regarding light penetration and a uniform layer of needle litter.

3.4.5.2 Farmland Descriptions

- Area 1 (7.8 ha) This folio consists of short sward with approximately 10% *Juncus* cover. The fields are largely open grass, with patches of rushes, classified as Wet grassland (GS4). There are Treelines (WL2) of conifers, interspersed by willow and gorse, internally and along much of the northern and western boundaries. The boundary that runs along the southeastern side is lacking hedgerows.
- Area 2 (12.2 ha) This area consists of Wet grassland (GS4) and encroaching patchy Scrub (WS1). There are some patchy Hedgerows (WL1) to the north creating a boundary with neighbouring fields. To the southwest the edge of the area is defined by mature conifers and by a small stream to the south and east. The ground cover has long tussocks and some *Juncus* cover.
- Area 3 (29.7 ha) This area of the Site is dominated by a mosaic of peatland and upland habitats, primarily degraded Wet heath (HH3) and Wet grassland (GS4), which is subject to very low intensity cattle grazing. Sward was variable but was generally tall and was dominated by rush species, purple moor grass, and heath species such as deer grass, ling heather, and Devil's bit scabious.

4. BIODIVERSITY ENHANCEMENT MEASURES

4.1 Overview

A total of 13 areas totalling c. 172 ha within the Site have been selected for biodiversity enhancement measures as part of the Proposed Project and to enhance the Site for species and habitats known to occur within the Site. An overview map of the Proposed Enhancement Site is shown in Figure 4-1 below.

Hen Harrier Habitat Enhancement

The Site is located within the known range of hen harrier, and as part of this BMEP, areas of commercial forestry and agricultural grassland within the Site have been identified that are suitable for enhancement. This includes for the permanent removal of c. 123 hectares of forestry and the establishment of more biodiverse upland habitats, making these areas available for foraging, and the management of c. 20 hectares of agricultural grassland into species rich wet grassland, which will lead to greater numbers of passerine prey being available for the hen harrier.

Marsh Fritillary supporting habitat and Species Rich grassland

Agricultural grassland in the eastern section of the Site has been identified as potential breeding habitat for marsh fritillary, given the frequent recordings of Devils-bit scabious. This land, however, is managed for agriculture and currently presents low uniform swards, which is sub-optimal for this species to breed. As part of the hen harrier habitat enhancement measures detailed in this report, it is proposed to implement an adaptive low intensity grazing regime within these areas which will promote both breeding habitat for marsh fritillary and species rich wet grassland (GS4). Application of fertilizers will also cease within these areas, and wildflowers strips will be sowed to improve overall floral diversity within the Proposed Enhancement Site.

In addition, an area between Turbine 5 and Turbine 6 (Area 3) has been identified as breeding site for marsh fritillary, but following condition assessment, has been assessed as 'suitable, under grazed'. Therefore, an adaptive grazing regime and monitoring plan for marsh fritillary has been proposed, to improve the suitability of this habitat for marsh fritillary.

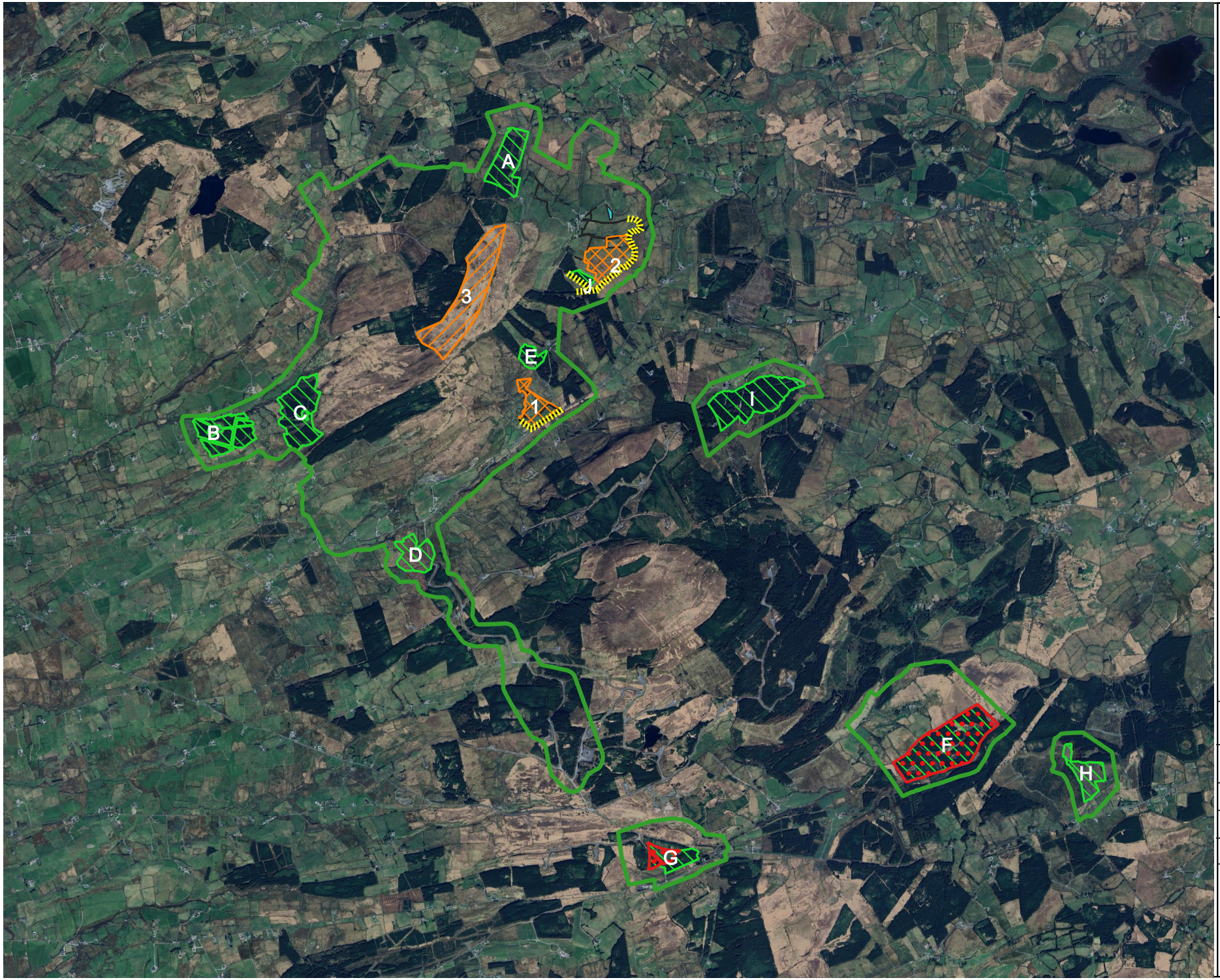
Peatland and Blanket bog

As part of the above hen harrier enhancement plan, it is proposed to fell 123 ha of existing forestry and restore underlying upland peatland habitat. Within these areas, sections of level ground with deep peat amounting to approx. 34.6 ha have been identified to restore high quality blanket bog habitat, following guidance set out by NatureScot (2025), Forest to Bog Restoration.

Linear habitats

It is proposed to bolster and plant new hedgerow and riparian corridors within the eastern section of the Site, as well as manage existing hedgerows and areas of native scrub. The aim of these measures is to ensure that the Proposed Project results in a net gain of linear habitats within the Site, protect water quality from adjacent agriculture practices, and to increase connectivity within the Site and the surrounding environments for protected fauna, including species of bat.

These measures are further detailed in the following sections. To note, the measures detailed in this report present large overlaps, but each will actively contribute to each other's targets i.e. hen harrier enhancement will also benefit marsh fritillary, peatland habitat, and linear features.



Map Legend

- EIAR Site Boundary
- Grassland management
- Stock Management
- Forestry Felling
- Forest to Bog
- Hedgerow Enhancement/ Planting
- Hedgerow and Scrub Management

N

Drawing Title
Biodiversity Enhancement Areas

Project Title
Slieveacurry Renewable Energy Development, Co. Clare

Drawn By	Checked By
PD	PD
Project No.	Drawing No.
240718	Figure 4-1
Scale	Date
1:45,000	2026-04-24

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4.2 Hen Harrier Habitat Enhancement

The hen harrier habitat enhancement involves a combination of permanent deforestation and restoration of farmland habitat, specifically designed to offset the identified potential *likely long-term significant negative effect* to hen harrier as a result of (indirect) habitat loss due to the displacement from turbines during the operational phase of the Proposed Project. The combined area totals 143 ha.

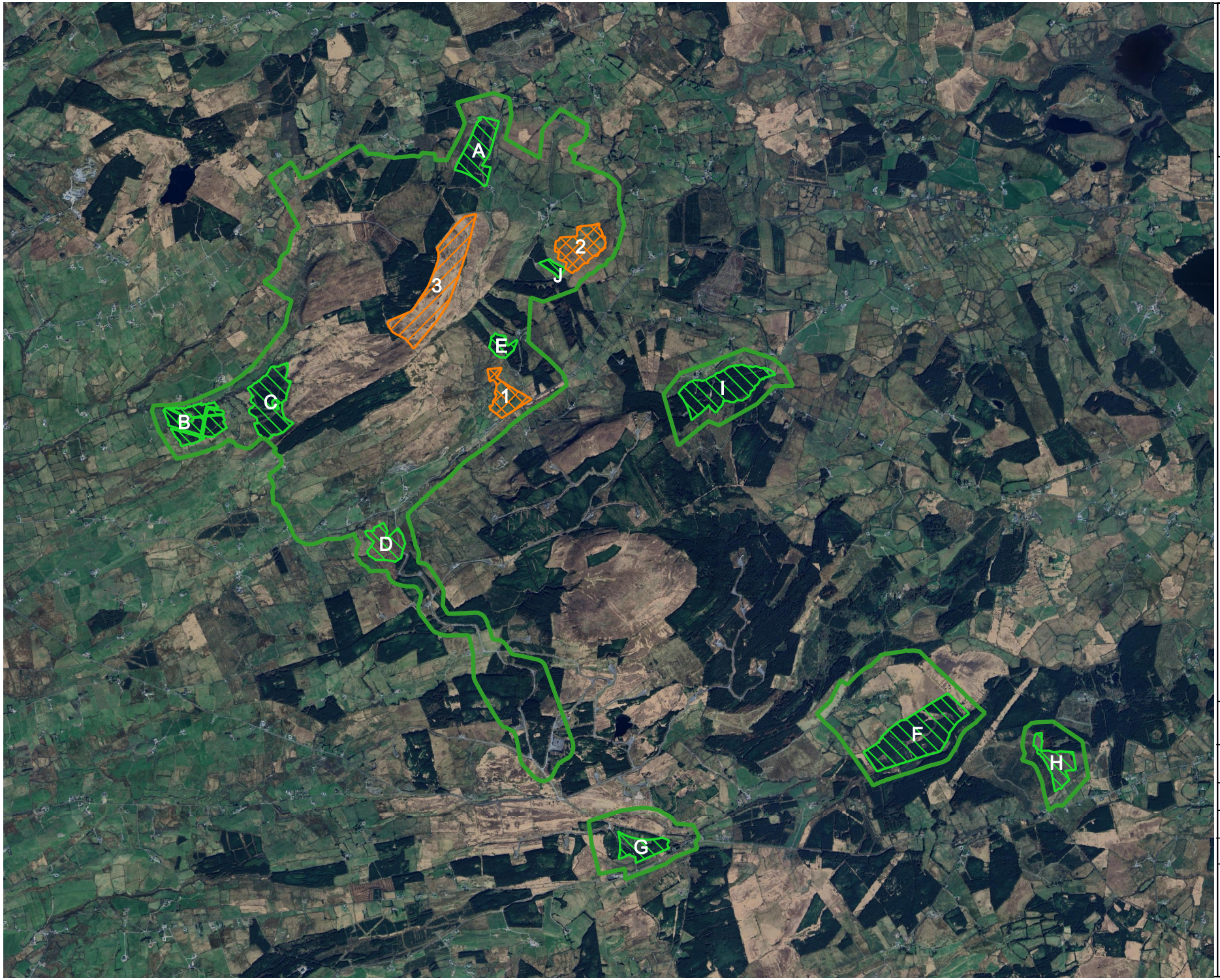
4.2.1 Main Objectives

The main objective of this BMEP within regards to hen harrier is to create, maintain and improve habitats for the benefit of hen harrier. It is recognised that anything that benefits potential prey species is of benefit to the hen harrier. The BMEP (following this principle) aims to provide an increase in the availability of passerine prey within the Proposed Hen Harrier Habitat Enhancement Areas. A key principle of the plan is the more diverse the plant species within the restored habitats the greater the diversity and abundance of passerines. For example, a monoculture of commercial forestry is likely to be significantly less diverse and hold far fewer passerines than the same area of dry heath. Hen harrier also favours open habitats for foraging over closed canopy forestry, as, among other things, prey is more accessible in open habitats.

There are 12 parcels of land, totalling 143 ha proposed to offset for the predicted (indirect) habitat loss due to displacement. Please see Figure 4-2 further above for location details. Areas A, B, C, D, E, F, G, H, I, and J are currently commercial forestry. Area 1 and Area 2 comprises agricultural land, the majority of which is classified as wet agricultural grassland which has evidence of past improvement or degraded (please see Section 3.4.5 above for further details). These areas are currently of low to medium ecological value (Local importance) and all provide opportunities to significantly improve their ecological value to foraging hen harrier. The key considerations in selecting the lands for restoration measures are as follows:

- Forestry is a net negative for hen harrier as it is only available to the species while young (>10-12 years typically) and after canopy closure is of no ecological value. As previously outlined, afforestation is identified by Article 12 reporting as a key threat/pressure of high importance.
- The farmland areas, have considerable potential to be restored to a biodiverse meadow with significantly more passerines than are currently present. As previously outlined, agricultural intensification is identified by Article 12 reporting as a key threat/pressure of high importance.

The following text provides an outline of the rationale underpinning the BMEP, what measures are proposed, how and who will implement them and a timeline to their likely success. This is outlined firstly for the forestry land and secondly the farmland.



Map Legend

- EIAR Site Boundary
- Farmland Management
- Forestry Felling

N

Drawing Title
Biodiversity Enhancement Areas - Hen Harrier

Project Title
Slieveacurry Renewable Energy Development, Co. Clare

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4.2.2 Deforestation and Restoration Measures

It is proposed to permanently remove c. 123 hectares of forestry (Areas A, B, C, D, E, F, G, H, I, and J) and to create more biodiverse upland habitats suitable for foraging hen harrier. This measure ensures the provision of high-quality replacement supporting habitat for hen harrier, in the form of upland peatland habitat, to offset for the loss of onsite habitat through displacement. Commercial forestry is associated with lower breeding success, is only of limited value to hen harrier while young and is of little to no ecological value once its canopy closes at c.12 years old. Please refer to Figure 4-2 for location details.

4.2.2.1 Overview

The first task of the BMEP was to identify the target habitats which the Proposed Enhancement Site would be restored to. The target habitats for the currently afforested lands were identified as wet heath and upland blanket bog, given the occurrence of these habitats locally. Their occurrence nearby was taken to indicate that the habitats could be created within these lands given similar conditions. The first and most important step to facilitate the restoration of the underlying peatland of the Areas A, B, C, D, E, F, G, H, I, and J, will be to permanently remove the forestry. All ten areas are likely to transition (following deforestation) into heather-dominated wet heath or upland blanket bog depending on terrain and peat depths. To aid this transition several key steps are required to promote, and/or avoid inhibiting, the growth of the key target species of *Calluna vulgaris* (ling heather). To that end, the following information, collated from a literature review, will inform the restoration of the Proposed Enhancement Site.

A 2023 Norwegian study (Iren Saure *et al.*, 2023) on the restoration of heathland after deforestation found that *Calluna* established immediately after clear-felling. This was considered to be "*most likely due to germination from a persistent Calluna soil seed bank, facilitated by clear-felling and soil disturbance by forestry machines (Walker et al. 2007, Allison & Ausden 2006, Henning et al. 2017) and favourably acidic and nutrient-poor soil conditions (Pywell et al. 2002, Walker et al. 2007). It is known that seed longevity of Calluna may exceed 60 years in the soil (Bakker et al. 1996).*" The literature also states that each restoration project likely needs to be considered on its own merits. Notwithstanding this, there are commonalities among projects that are unsuccessful, which include a lack of a seed bank of the target *Calluna* species, the re-encroachment of conifers and tramping/overgrazing. In the present case, conditions are favourable for the establishment of *Calluna vulgaris* (ling heather). As there is likely a vast seed bank of *Calluna vulgaris* (ling heather) seed under the forestry of the Proposed Hen Harrier Habitat Enhancement Areas from the abundant adjoining ling heather, and from the understory of the conifer plantation currently in Areas A, B, C, D, E, F, G, H, I and J. Forestry will be removed and the machinery involved in the deforestation will provide the necessary soil disturbance to facilitate germination. The soil is likely acidic and nutrient-poor due to the recent cultivation of the commercial forestry on the land. Additionally, the following further interventions are considered necessary - seedling conifers will be removed, and livestock-proof fencing will be installed to prevent tramping and overgrazing.

4.2.2.2 Deforestation Measures

The habitats recorded within these areas are detailed in Section 3.4.5. In summary, Areas A, B, C, D, E, F, G, H, I, and J are comprised of conifer plantations ranging from immature to mature to recently felled. Additional measures within Areas F and G are proposed which aim to restore blanket bog habitat using appropriate and proven 'forest to bog' methodologies, see Section 4.4 for further details. Sections within the forestry plantation of Area B included powerline setbacks which had species compositions which were characteristic of upland blanket bog. There are also areas of dense conifer plantations, with sitka spruce (*Pichea sitchensis*) dominating these areas. Gaps in these dense plantations come in the form of access paths and fire breaks allowing light and in turn more plant growth in some sections. Management prescriptions to be implemented by the applicant include:

- The identified area of existing forestry will be permanently removed. The timber and brash will be collected and removed off-site. The area will be allowed to revert to peatland habitat. This process will be aided by drain blocking as discussed below. This will create suitable foraging habitat for hen harrier and its associated prey species. Pre-mature felling of forestry will be undertaken before the first breeding season of the construction phase of the project programme. This will allow time (i.e. min. three growing seasons) for the clear-felled site to revegetate in advance of the operational phase, thereby ensuring replacement habitat would be available should the predicted displacement effect occur.
- A hydrology/hydrogeology study will be undertaken to map the movement of ground and surface water to inform the requirement for drain blocking. Forestry drainage channels will be blocked where necessary, using peat dams or plastic dams, as appropriate. In flat areas, drain blocks will be placed every 15 meters and more frequently when accounting for a slope. When drains are blocked this reinstates the waterlogged conditions which are crucial for the survival of peatland plants. These works will be subject to a separate planning application if required.
- Self-seeding conifers originating as windblown seedlings from adjacent and nearby commercial conifer plantations, are a threat to the viability of the enhancement areas. They gradually take hold, and if unmanaged, would eventually make the area unsuitable for nesting/foraging hen harrier. Habitat maintenance of the area will involve the eradication of self-seeding conifers, and removal off-site. It is envisaged that the forestry areas will require maintenance twice during the life of the Proposed Project, once after approximately 10 and 20 years. The monitoring outlined in Section 5 below will monitor the level of encroachment by self-seeding conifers and will bring the scheduled removal forward as required.
- In the event of any invasive species being recorded within the Proposed Enhancement Site, an invasive species management plan will be put in place to eradicate any stands of such species.
- Herbicides will not be used for the eradication of self-seeding trees and will not be relied upon for the clearance of invasive species.
- Enhancement and maintenance works will be undertaken outside of the nesting season as per the Wildlife Acts 1976 – 2023 as amended. A suitably qualified ornithologist will be present at the removal of all woody vegetation, to ensure that identified breeding bird sites are avoided. If breeding activity of birds of high conservation concern is identified, no works shall be undertaken within a species-specific buffer (as per Goodship and Furness, 2022) in line with best practice, until it can be demonstrated that the nest is no longer occupied.
- The felling license for these lands will be applied for in tandem with the felling license application that will be required to facilitate the construction of the built infrastructure of the Proposed Project. The felling license will include management prescriptions for the felling of the forestry. Following felling, these enhancement lands will be managed for the benefit of hen harrier and peatland restoration.
- If at any point, hen harrier are identified to be nesting on any part of the Proposed Hen Harrier Habitat Enhancement Areas, the Applicant, in cooperation with the individual landowner, will provide for the protection of the nest site.
- The use of poisons or stupefying bait is not permitted within the Proposed Hen Harrier Habitat Enhancement Areas. Hen harriers and other birds of prey can fall victim to secondary and direct poisoning.

The specific measures and timelines for the deforestation and restoration of these enhancement lands are outlined in Section 4.7 below.

4.2.2.3 Creation of Patchy Scrub Habitat

Areas of patchy scrub will be planted within Areas A, B, C, D, E, F, G, H, I, and J in order to create a diversity of vegetation structures to provide cover and resources for hen harrier prey species.

- Scrub patches will be planted using a mix of bare-root saplings and 2-3 year old potted trees to provide some structural diversity and to maximise establishment success.
- Areas for planting will measure approximately 0.2ha in size and not exceed 10% of the total area of each area. The scrub will be distributed throughout the deforestation areas.

- Patches of existing native scrub remaining post- deforestation will be targeted for reinforced through planting.

The following species, which are present locally and are suitable for the upland exposed location with peat soils, will be used:

- Grey willow (*Salix cinerea)*
- Birch (*Betula pendula*)
- Alder (*Alnus glutinosa*)
- Hawthorn (*Crataegus monogyna)*
- Blackthorn (*Prunus spinosa)*
- Holly (*Ilex aquifolium)*
- Hazel (*Corylus avellana)*
- Elder (*Sambucus nigra)*
- Rowan (*Sorbus aucuparia)*

4.2.3 Management of Farmland for Hen Harrier

In addition to the forestry areas, local landowners have been engaged to manage their land for the benefit of hen harrier. The farmland is predominantly wet grassland with frequent stands of rushes (*Juncus spp.*), gorse and scrub. Hedges border fields and fringe the roads that provide access to the management areas. Please refer to Figure 4-2 for location details.

An area totalling c. 20 hectares of farmland has been identified for retention and enhancement measures. This area is located between c. 2.5 and 3.5 kilometres from the traditional hen harrier territory identified near the Proposed Wind Farm Site. The programme will aim to safeguard existing hen harrier habitat and promote the creation of new and improved supporting habitat for hen harrier and their prey. The programme will broadly follow the approach taken by the Hen Harrier Project (www.henharrierproject.ie).

The applicant has entered Biodiversity Cooperation agreements with landowners to manage land for the benefit of hen harrier. The Biodiversity Cooperation agreements is exercisable prior to commencement of construction and measures will be put in place in advance of the first breeding season of the construction phase of the project programme, thereby ensuring management measures are in place should the predicted displacement of foraging hen harrier from the development footprint occur.

The prescriptions are concerned mainly with maintaining low-level grazing in wet grassland in a condition that is neither too overgrown nor too heavily grazed (preferably through low-intensity grazing), the retention of scrub areas and edge habitats (i.e. bushy hedgerows), and the creation of wildflower bird strips. The intention is to ensure that appropriate grazing continues, and that appropriate management of grassland, scrub and bog creates a favourable habitat mosaic for hen harrier prey species. The measures will be overseen by the Applicant and where necessary will be developed by the Applicant as provided for in the management agreements.

The Applicant will be responsible for having these managed lands audited to ensure the prescriptive measures have been implemented before funds are released to landowners. The costs of dynamic implementation measures will be borne by the Applicant. To aid with the practical implementation of management prescriptions and to facilitate the audit process individual farm plans will be created for each landowner if planning permission is granted and will be updated at regular intervals throughout the lifetime of the Proposed Project. Audits will be undertaken annually for the 35-year lifetime of the Proposed Project. Please refer to Section 5.1 for further details.

The sections below provide an outline of the range of measures that will be included in the farmland plans. On receipt of a successful grant of planning permission for the Proposed Project, the NPWS will

be consulted as part of the finalisation of the farmland plans. The proposed management prescriptions will focus on the following areas:

- Grazing regime;
- Wet grassland and peatland;
- Rush management;
- Delayed topping/mowing;
- Reduction/cessation of fertiliser application;
- Annual planting of wildflower strips

4.2.3.1 Grazing Regime

The Hen Harrier Project field guidance[5] states "*Sward structure is an important contributor to both prey numbers and prey accessibility. Rush tussocks create foraging and nesting opportunities for small rodents along with meadow pipits and other ground nesting birds. Sward structure responds well to management and significant progress can be made in a single growing season*". The overall aim of the grassland management will be to create foraging and nesting opportunities for hen harrier prey species through changes to the grazing regime by changes to the length of time lands are grazed, and reduction or increase in stocking density as deemed appropriate to develop and/or enhance foraging habitat for hen harrier. The specific detail of the grazing regime will be developed on a land holding by land holding basis and included in the Farm Plan.

The principal method for managing grassland habitats as suitable habitats for hen harrier is the use of low intensity grazing. Low intensity grazing will be maintained, to ensure cover for prey species is present. Landowner farm plans will set a stocking density of no greater than 0.15 livestock units per forage hectare for seven consecutive months within the calendar year, as per the Department of Agriculture, Food and the Marine recommendation. Habitat management prescriptions for wet grassland and peatland are outlined below:

- In general, maintain stocking levels of no greater than 0.15 livestock units (LU) per forage hectare;
- On areas of wet grassland, the application of chemical or organic fertiliser will be prohibited;
- All rhododendron or other invasive species must be removed in Year 1 of the plan. Ongoing control will be required in each subsequent year. Acceptable control methods are cutting/pulling;
- Consideration will be given to the creation of shallow pools 30- 50 cm deep to provide spawning sites for amphibians; and
- In cases where the land is wet, concentrate grazing during the summer months.

4.2.3.2 Rush Management

The objective in managing rushes is to maintain rough grassland in the optimal condition for hen harrier. Optimal condition constitutes as dense a covering of rushes as feasible, but not to the point where rushes are falling over or matting the ground. Rush cover in the 30 – 70% range is ideal. Habitat management prescriptions to be included in the farm management plan for managing rushes on wet grassland are outlined below:

- In general, rushes will be cut on a 2-year cycle unless there are specific reasons for a longer cycle, e.g. weak rush growth.
- In most cases, active rush management will commence in Year 1 of the plan and should only be delayed until Year 2 or 3 where improved grassland is in

[5] *Hen Harrier Programme Field Guidance for scoring Species Rich Grassland Ver. 2 June 2021* http://www.henharrierproject.ie/HHPSRGGuidance.pdf *(last accessed 9th May 2024)*

reversion, where rush growth is very weak or where the rushes were cut or treated with herbicide in the year prior to joining the scheme.
- On farms with a large area of rushy wet grassland (> 10 hectares), active rush management can be delayed on a portion of the area until Year 2 of the farm plan. The area where active rush management is to be delayed for this reason should not normally exceed 50% of the wet grassland component of the farm.
- The planned rush management will be reviewed on an annual basis to determine if it is having the desired effect. If it is found during an annual inspection that rush recovery has been stronger or weaker than had been originally anticipated, the farm plan will be changed to adjust the cutting sequence for future years and provisions for these amendments will be included in the farm plan management agreements. These details have been consented to by the consenting landowners.

4.2.3.3 Delayed Topping/Mowing

Topping or mowing will not be carried out during the period 1 March – 31 August inclusive to avoid disturbance and mortality or injury of ground-nesting bird species and other wildlife. The availability of tussocky rushes and multi-layered swards is key to supporting the prey species of birds and small mammals favoured by hen harrier. However, individual landholdings may be allowed, on the advice of the ecologist and agricultural advisor, to top or mow grasslands during the period referenced above. Any such allowance/deviation would be written into the Farm Plan.

4.2.3.4 Reduction/Cessation of Fertiliser Application

The requirements for reduction or cessation of the application of fertilisers will be determined by soil testing and survey carried out by the agricultural advisor to inform the individual farm plan. This measure will aim to increase the species and structure diversity of the grassland sward through reduced nitrate application. This measure will also assist in meeting the requirements of the Nitrates Directive and improve the quality of surface water run-off to streams and drains locally.

4.3 Marsh Fritillary enhancement

The Site includes large areas of confirmed breeding habitat for marsh fritillary, in upland heath and wet grassland areas in proximity to the Proposed Wind Farm Site infrastructure. Additional areas of agricultural land in the eastern section of the Site, classified as Wet grassland (GS4), have been identified as potential breeding habitat, given the frequent occurrences of the larval food plant of this species, Devils-bit scabious (*Succisa pratensis*), but are managed for agricultural purposes through grazing and/or rush topping. This results in a short uniform sward, which does not provide optimal habitat for breeding marsh fritillary.

Therefore, the following are proposed as part of this plan:

- Management of wet grassland within the Proposed Hen Harrier Habitat Enhancement Areas to promote potential supporting habitats. – Areas 1 and 2
- Grazing regime within confirmed supporting habitat within the Site to improve suitability for marsh fritillary – Area 3

4.3.1 Wet Grassland Management

The measures provided in Section 4.2 provides for the management of 19.9 ha of existing farmland (Areas 1 and Area 2) into more species diverse/rich Wet grassland (GS4) habitat, which will also promote supporting habitat for marsh fritillary.

During the surveys undertaken, the larval food plant of marsh fritillary, Devils-bit scabious, was frequently recorded within these agricultural grasslands, and therefore, provided the management measures in Section 4.2.3 are implemented, suitable habitat for this species will be established once a varied sward of between 12 and 25cm in height is achieved.

4.3.2 Adaptive grazing regime

Area 3, as depicted in Figure 4-3, has been identified as breeding habitat for marsh fritillary, with larval webs recorded during the target surveys undertaken. See Section 6.4.2.3 of Chapter 6. Whilst confirmed breeding sites, condition assessments of this area noted that these habitats are 'suitable – under grazed', as per assessment guidance from the National Biodiversity Data Centre (NBDC). Therefore, it is proposed implement an adaptive grazing regime which will be informed by annual monitoring of Area 3, increasing or decreasing grazing as required.

The following management regime of Area 3 will be implemented, to promote suitable sward structure for marsh fritillary:

- Sheep grazing is unsuitable as they will graze selectively for flowers. Proposed Enhancement Site will be grazed by cattle.
- Supplementary feeding to be only provided outside of the enhancement area.
- Use a low stocking level of approx. 0.5LU/ha[6]. However, the stocking rate is to be subject to annual monitoring and altered as required. The goal is to have a structured sward between 12 and 25cm in height. Extensive (but non-intensive) grazing will result in areas that look under grazed, but which are used for basking adults.
- No fertiliser, slurry, herbicide, pesticide usage
- No reseeding with perennial rye grass
- Field operations such as rush or scrub control should only be carried out November to February when caterpillars are in hibernation and less subject to disturbance, and outside of bird nesting season

Details on monitoring are provided in Section 5 of this report.

[6] *Byrne, Dolores and Moran, James (2018). Best practice guidelines for managing lowland species-rich grasslands and marsh fritillary grassland habitat in north-west Ireland. Report prepared for the European Commission, DG Environment, Agreement No. 07.027722/2014/697042/SUB/B2.*

Map Legend

- EIAR Site Boundary
- Grassland management
- Stock Management

N

Drawing Title
Biodiversity Enhancement Areas - Marsh Fritillary

Project Title
Slieveacurry Renewable Energy Development, Co. Clare

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4.4 Peatland habitats

Measure detailed in Section 4.2 for enhancement of hen harrier habitat include the felling of c. 123 ha of forestry to restore the underlying upland habitats, which includes peatlands, including Upland blanket bog (PB2) and Wet heath (HH3). This will be undertaken within Areas A, B, C, D, E, F, G, H, I, and J. The methodologies for this have already been provided above, and are not repeated.

However, additional measures within Areas F and G are proposed, amounting to 36.4 ha, which aim to restore blanket bog habitat using appropriate and proven 'forest to bog' methodologies, as described below.

4.4.1 Forest to Bog

The proposed bog restoration follows the techniques recommended in NatureScot's Peatland ACTION - Technical Compendium -Restoration – 4 Artificial Drains and 8 Forest to Bog Restoration

Guidance has also been taken from the following documents:

- Raised Bog Monitoring and Assessment Survey 2013 - Irish Wildlife Manual No.81
- Best practice in raised bog restoration in Ireland. Irish Wildlife Manual No.99
- Guidelines for a national survey and conservation assessment of upland vegetation and habitats in IrelandVersion 2.0. Irish Wildlife Manuals No. 79

Effective bog restoration is highly influenced by the topography of the area with flat areas of deep peat being more suitable than sloping areas where the water table can be more difficult to control. In addition, access for management is another important factor to consider. Sites where machinery can get close to the restoration area on existing roads or dry ground are preferable to sites where the timber/brash to be removed has to be taken a long distance over poor terrain or where long roads are required.

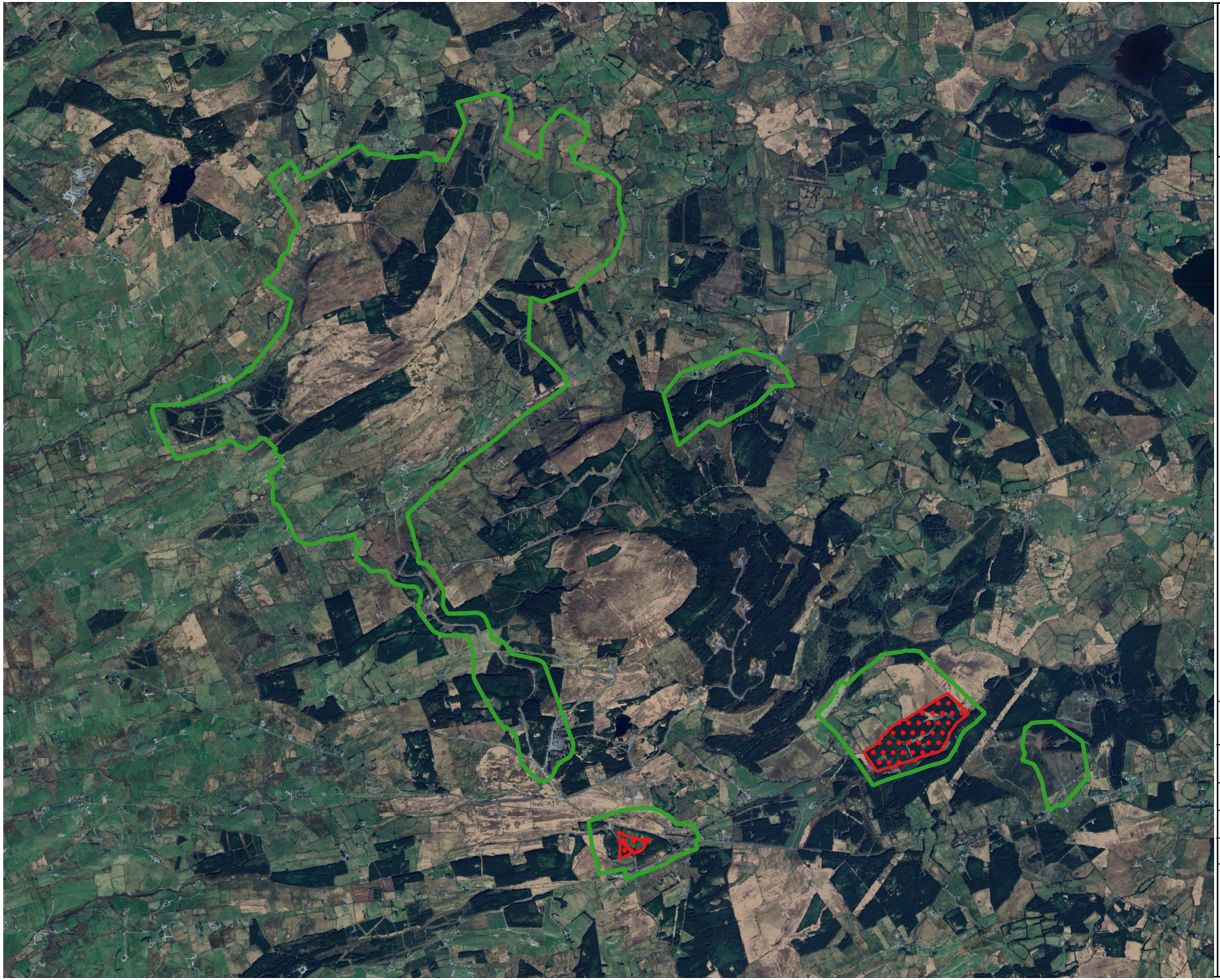
The 36.4 hectares within Area F and Area G, for which this plan proposes bog restoration, was chosen specifically because they support sub-optimal forestry on deep peat habitat with blanket bog vegetation persisting over much of the ground layer. The areas (Area F and G) are shown in Figure 4-3.

Area F

Area F has been identified as an area for blanket bog restoration as it is an area of flat topography and deep peat depths, amounting to approx. 5.3 ha. Land use is currently forestry, but as indicated in Plate 4-1, forestry quality is sub-optimal. There are no mapped watercourses within Area F, but the site has been drained through a network of forestry drains.

Area G

Area F has been identified as an area for blanket bog restoration as it is an area of flat topography and deep peat depths, amounting to approx. 31.1 ha. Land use is currently forestry, but as indicated in Plate 4-2, forestry quality is varied, often presenting sub-optimal growth. The southern boundary of Area F is delineated by the Inagh [Ennistymon] river which presented as a first order stream with low discharge levels. There will be a buffer of 20m between the restoration area and the watercourse.



Map Legend

- EIAR Site Boundary
- Forest to Bog Restoration

N

Drawing Title
Biodiversity Enhancement Areas - Forest to Bog

Project Title
Slieveacurry Renewable Energy Development, Co. Clare

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PD	PD
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Plate 4-1 typical conifer plantation in restoration area with blanket bog vegetation on ground in Area G

Plate 4-2 typical conifer plantation in restoration area with blanket bog vegetation on ground in Area F

The methodology followed to undertake this blanket bog restoration is described below

4.4.2 Tree Felling

Felling will be undertaken as set out in Section 4.2.2.2 above. Timber and brash will be gathered and removed from the site in line with best practice. Windrow is not considered suitable for the blanket bog restoration area, as best practice guidance recommends that brash recovery is particularly important in water quality sensitive catchments (2026). Brash mats may be left in place to facilitate access for restoration activities.

The machine operators used will be experienced at working on deep peat and made aware of the specific risks on the site. The site will be walked before commencement of works. On wet parts of the bog, the excavator may need to travel on bog mats.

4.4.3 Furrow and Drain Blocking

The first action will be to effectively block direct connection between the restoration works and the watercourse within Area F. Any collector artificial drains (interceptor drains) that provide connection to the watercourse will be blocked to prevent run off of suspended solids or other pollutants. These measures will take the form of peat dams where there is no flow (as is the case in the vast majority of drains/furrows) and check dams, if any flowing drains are encountered. The restoration works will then commence upslope at the highest point and work systematically downslope towards the natural watercourse.

Given the topography and small size of drains and furrows, it is likely that surface smoothing will be the main action undertaken (see description below). However, if it becomes apparent, following felling, that additional drain blocking is required, this will be undertaken as necessary following the procedures provided below.

4.4.3.1 Peat Dams

Given the topography of the site and nature of the drains, it is likely that, if dams are required, they will be peat dams as opposed to plastic dams that would be required on sites with higher flows and gradients and where there is no other option. Construction of peat dams will be achieved using a low ground pressure excavator with a moderate to long bucket reach to reduce movements.

Method:

1. *Remove the turfs from the surface of the in ditch borrow pit and the dam location, and place to the side.*
2. *Clean out/push away from dam location the unconsolidated peat and debris.*
3. *Key the dam into the sides of the ditch, with a 0.5 to 1 m indent on both sides.*
4. *Use consolidated peat from an in-ditch borrow pit upstream to create the dam. Avoid leaving steep sided or deep holes behind the dam, as these can be dangerous to stock.*
5. *If necessary, shallow swales that extend out (or on one side) from behind the dam can be added to re-direct water from the ditch line.*
6. *Regularly compact the peat in the dam with the back of the excavator bucket to ensure an effective seal.*
7. *When the dam is 50 cm above the surface place the vegetation turfs across the top of the dam (and in swale if present) and press with the bucket to ensure good contact between the turf and the peat.*

Timber may be used in conjunction with peat dams to block small drains and furrows.

4.4.3.2 Plastic Dams

It is unlikely that the use of plastic dams will be required. However, this section provides the proposed methodology for the installation of plastic piling dams on ditches less than 1.5m wide – should it be required. Plastic piling is light, versatile and slots together on site. If properly installed, plastic piling dams can form a good watertight seal that will last for decades. Generally, dams are placed at between 10 and 20 m intervals on flat ground but would need to be closer where there is a slope. It is expected that the final water level from the lower dam will rise half way up the upstream dam. The final water level to be at the peat surface or no more than 20 cm below the surface. Plastic piling dams will be used in the following situations:

- On ground that is too soft and/or unstable to allow safe machine access.
- On portions of the site that are inaccessible by machine.
- On active drains that are partially infilled with vegetation yet hold too much water to allow effective installation of peat dams.

The methodology for the installation of plastic dams is provided below:

- Hammer piles in starting from the centre of the ditch
- Position the longest pile in the deepest part of the drain. Use a sharp spade to pre-cut the outline of each pile in the surface vegetation. Push the pile into the peat using your own weight.
- Ensure that the piles remain vertical as it will become increasingly difficult to insert piles if they lean in any direction. Using a mel, drive further and when firm guide adjacent piles into their cams, repeating the process. Continue until all piles are firm in the peat.
- Piling will only create a good seal if driven into at least 75 cm of solid peat, usually found below the 50 cm of soft peat in the base of the ditch.
- The top edge of the pile may require shielding from the metal of the hammer. Several methods are used but the most effective is a timber batten resting on the pile.
- Shape the dam to form a gently curving upstream 'C' shape at the ends. This shape assists dam strength and increases the amount of water retained. The dam must extend well into the banks of the ditch. A rule of thumb is the extensions into the bank on each side, equal the width of the ditch. On slopes, the wings of the dam can be angled down the slope to re-distribute water over the site and reduce pressure behind the dam.
- Continue driving the piles starting at the centre, until all piles are approximately 30 cm above bank level. Leave the dam to fill with water, as the last firming is best done with water behind the dam to lubricate the piles. Finally, hammer the piles until they sit no more than 10 cm above the ground surface. The dams are not to be visible above the vegetation. If they are too high after installation, then the tops of the piling will be trimmed off to make sure that the dams blend in with the landscape. Do not hammer the piles below the ground level, as this reduces the amount of water held and spread across the adjacent peatland.

4.4.4 Stump flipping and Surface Smoothing

Surface smoothing and stump flipping is likely to be the primary restoration activity undertaken in the blanket bog restoration site. Bog restoration techniques must reverse the impact of the ridge-furrow cultivation process which continues to persist post-felling, as well as raising the bog water table within the underlying peat mass which have been damaged by the afforestation process. Methods comprising various surface smoothing techniques, and furrow/drain blocking or a combination of both have shown good results in restoring active blanket bog habitat. A variety of techniques can be used depending on the site conditions.

The key principles are 'enough and no more' and aim to minimise compaction and disturbance. Mitigation measures to manage surface run-off (particularly water quality) from restored sites may be

necessary, depending on the method used, site conditions and sensitivity of receptors. Research in Scotland shows a clear differentiation between ridge-furrow original surface in terms of depth to water table and therefore rates of recolonisation of specialist bog species to post felling sites. Leaving furrows untreated may allow bog vegetation to colonise them over time, but the prospects for expanding cover of bog vegetation onto plough shoulders (the original surface level) and then to ridges seems very poor and the process would likely take a very long time. Plough ridges often occupy up to 50% of the plantation surface area.

Surface smoothing is the process where the ridge and furrows of the forestry drains are levelled or smoothed out using a combination of damping down with the excavator bucked, flipping or mulching stumps, and cross tracking. The operation can employ all 3 techniques.

4.4.4.1 Smoothing with Bucket

When the peat is malleable and stumps are small and can be crushed into the ground, damping down with the bucket can be used. When the peat is not as malleable, the stump can be mulched or flipped as described below. The entire area can be smoothed off either by damping down with the bucket, or cross tracking.

4.4.4.2 Cross-Tracking

Once the surface of the ground has been smoothed as described above, the excavator then tracks over the bog surface and the weight of the machine will compress the surface (cross tracking). The aim is to retain as much of the bog vegetation as possible and not bring up too much deep peat to the surface which takes longer to revegetate. The use of a low ground pressure excavator with wide tracks (1.9m or greater) will reduce compaction of the site. Cross tracking is shown in Plate 4-3.

Plate 4-3 Recently ground smoothed peat on a site in Scotland (May 2022)

4.4.4.3 Stump Flipping and mulching

Using a low ground pressure excavator with a toothed bucket, the root plate of a stump can be carefully dug up, flipped and pushed into the adjacent furrow. The plough ridges are then smoothed out by sliding the ridge material carefully into the furrows with the excavator bucket, ensuring any vegetation remains on top.

Stump mulching: Involves the removal of the stump using a stump removal attachment fitted to an excavator. This process is similar to stump flipping, except that the stump is mulched instead of flipped before the ground is smoothed.

4.4.5 Removal of Self-Seeded Trees

To prevent the colonisation of the restoration area by tree species, the site is to be monitored for all seedling regeneration and the regeneration removed annually for the first five years. The frequency of maintenance and monitoring will be reviewed at that stage and can be reduced if there is little ongoing colonisation. The colonisation will not be allowed to compromise the conservation status of the restored habitat and the monitoring frequency will ensure that this does not happen. The period between monitoring visits and associated maintenance will not exceed 5 years

4.5 Linear habitats

It is proposed to plant c. 1,960m of hedgerow and riparian woodland habitat within the Site, as shown in Figure 4-5. These have been strategically chosen to link up existing areas of bat activity and to extend connectivity through the Site. It is also proposed to bolster and maintain c.3.4 km of gappy or poor-quality hedgerow habitats in the eastern section of the Site.

Species selected will be indigenous to the local area. The ideal native hedge is made up of approx. 75% hawthorn and 25% of at least four other species[7]. When planting new hedgerows, plants will be closely spaced (a maximum of 50cm apart) and planted in a staggered row. The new hedgerow will need to be protected from poaching by livestock, through the erection of new stockproof fencing where required, which should be at least 1m away from the hedge, and on each side if required. Alternatively, fence guards can be used on each tree, with electric fencing erected at least 1m away from the target habitats.

The below listed species, which were identified as being locally present during the detailed habitat surveys undertaken or identified as being suitable native species found within the wider local area, will be used in the species composition.

Riparian planting will be carried out along the Knockacarn River in the east of the Site; all saplings will be planted by hand to reduce the potential for bare soil exposure and sediment runoff. Strictly no fertilisers will be used in the riparian zone.

Species to be planted for both hedgerows and riparian planting include:

- Hawthorn (*Crataegus monogyna*)
  - Proportion of hedgerow mix: 75%
  - Age class to be planted: combination of whips and advanced nursery stock (10cm – 12 cm girth trees) to increase structure diversity.
- Hazel (*Corylus avellana*)
- Blackthorn (*Prunus spinosa*)
- Rowan (*Sorbus aucuparia*)
- Elder (*Sambucus nigra*)
- Goat Willow (*Salix caprea*)
- Grey willow (*Salix cinerea*)

The following measures will be followed when planting Riparian woodland:

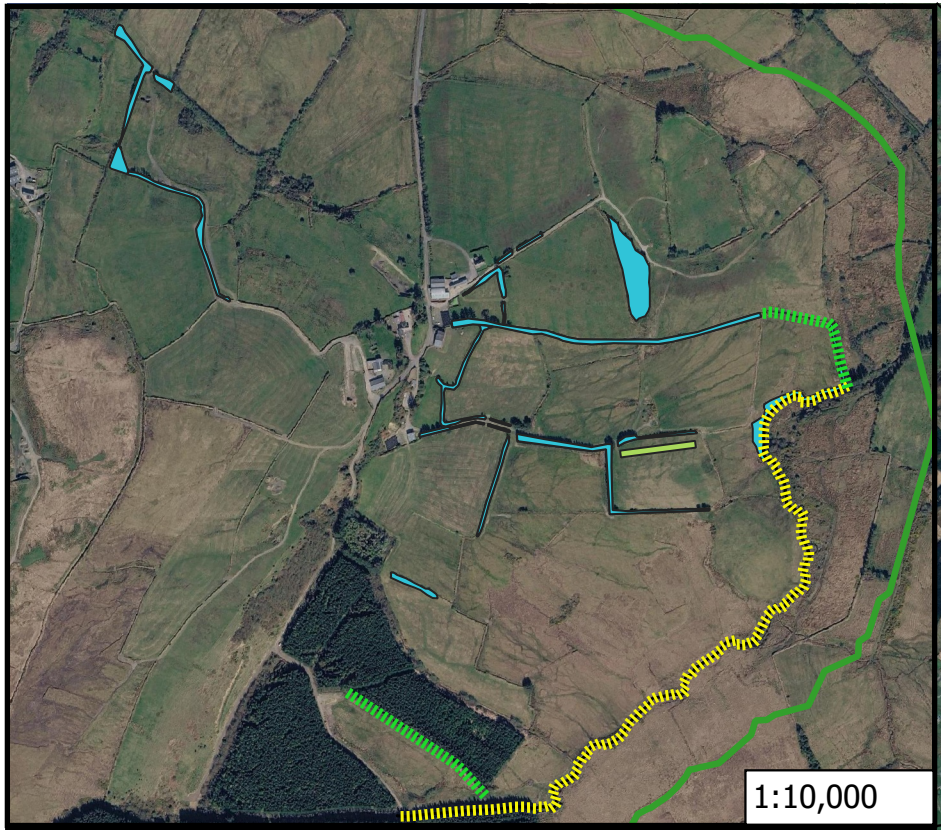
- Mark out the area for planting so it is clear exactly where planting will be established.
- Use thin stakes or sticks to mark the rows or areas of trees to be planted.
- It is recommended that there are 2m spacings between trees. Shelterbelt planting may be applied by planting up two lines of trees as a staggered row.
- All planting will be done by hand and will be undertaken by a suitably qualified arborist.
- Planting will be undertaken in the dormant season, between November and March.
- Hedgerow will be pit planted, in areas of clear vegetation. This involves using a spade to dig a hole with roots placed in the centre. Soil is then placed around the hedgerow and firmed in, ensuring the tree is upright.

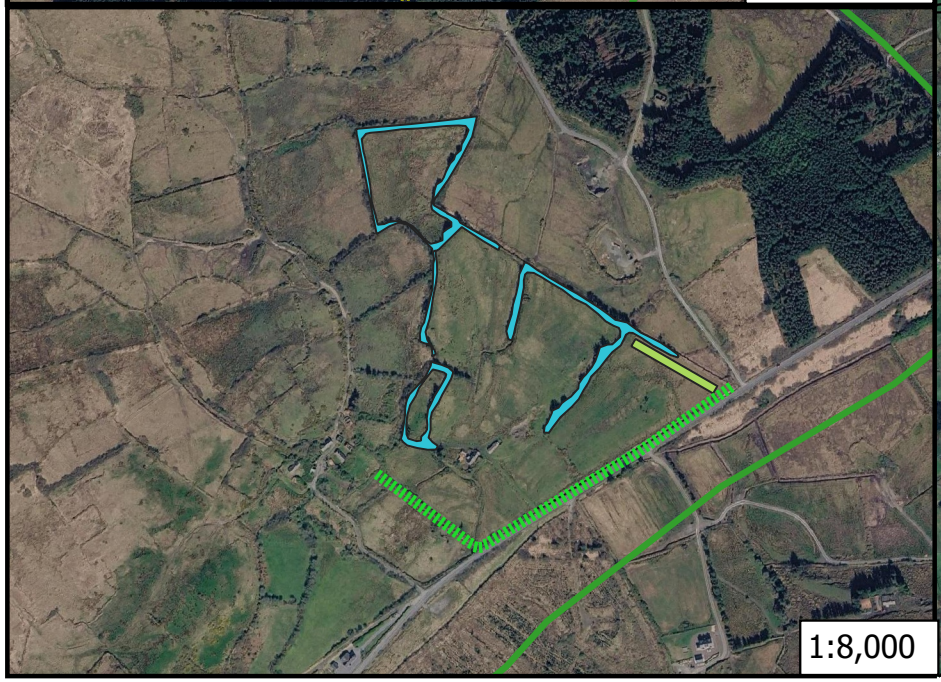
4.5.1 Hedgerow Management

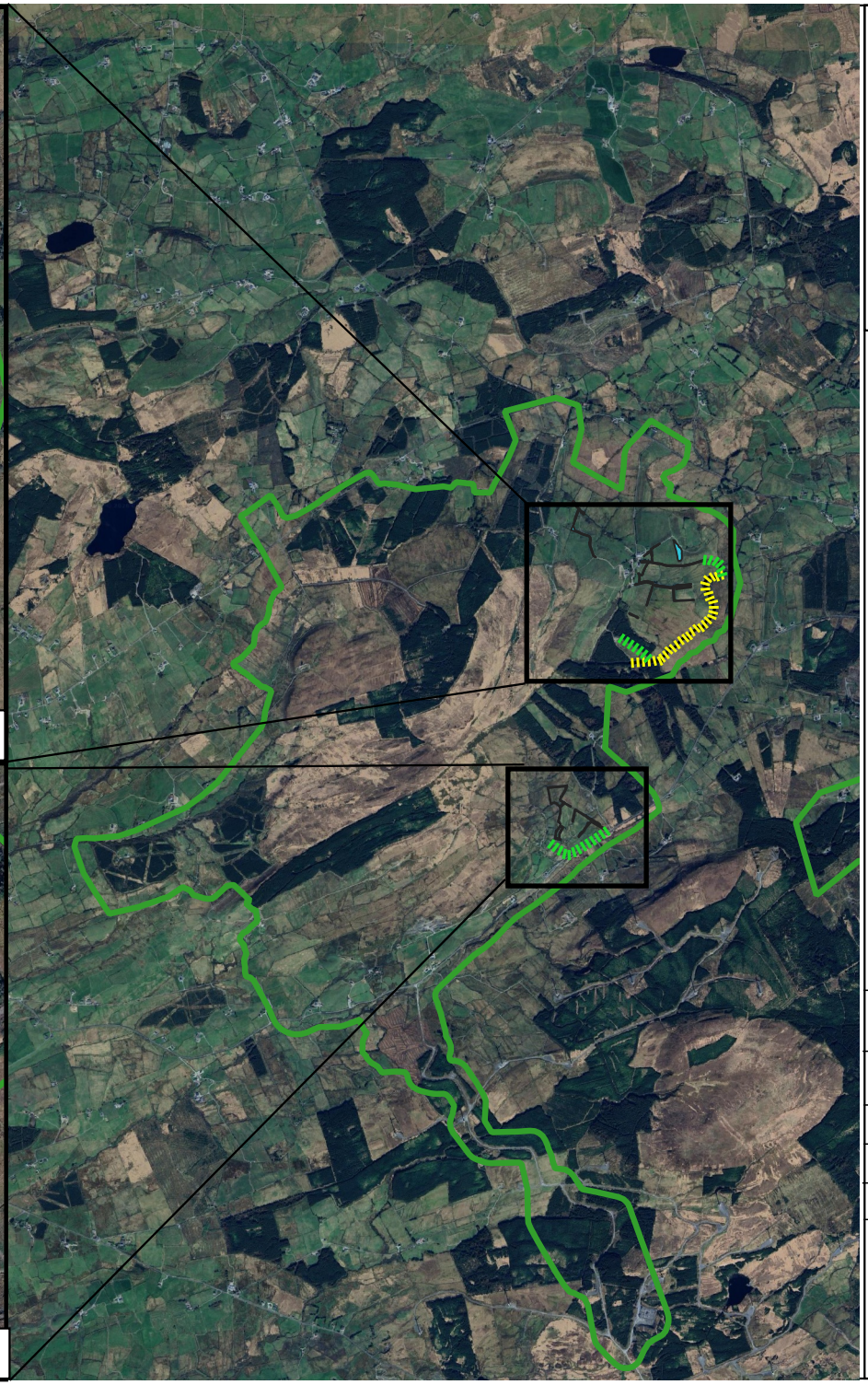
- Hedgerows to be trimmed on a 2 or 3-year rotation to maximise structural diversity and to prevent over-trimming,
- Hedgerows to reach approx. 2.5m height with an 'A' shape,

[7] *Pollinator-friendly management of Wind Farms. All-Ireland Pollinator Plan, Guidelines 12. National Biodiversity Data Centre*

- Cut hedgerows between November and January. This will avoid the bird nesting season (March 1st to August 31st) and will avoid impacts on foraging pollinators,
- It is expected that ivy will self-colonise, and this will be retained where possible,
- Grassy margins will be retained to preserve flowering ground flora,
- Avoid the use of fertilisers, slurry, herbicides and pesticides.







Map Legend

- EIAR Site Boundary
- Maintain Existing Scrub and Hedgerows
- Riparian Planting
- Hedgerow planting
- Wildflower Strips

N

Drawing Title
Biodiversity Enhancement Areas - Linear features

Project Title
Slieveacurry Renewable Energy Development, Co. Clare

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4.6 Invasive species

During field surveys, a search for Invasive Alien Species (IAS) listed under the 'Third Schedule' of Regulations 49 and 50 of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011) and the 'First Schedule' of the European Union (Invasive Alien Species) Regulations 2024 (S.I. 374 of 2024) was conducted. One species - Rhododendron (*Rhododendron ponticum)* - was recorded at multiple locations within the Site. Infestations range from small saplings within peatland habitat to large dense thickets within all habitats of the Site. The location of several of these infestations overlap with the design of the Proposed Project.

Full details of all scheduled invasive species recorded during the surveys, with locations, are provided in the Invasive Species Management Plan (ISMP) in **Appendix 6-5**. of the EIAR, as well as the proposed management measures to be implemented as part of the development. The implementation of the proposed ISMP will remove the threats posed on native habitats within the Site, as a result of the impacts from invasive species. While this is included as a separate Appendix, this is also considered a biodiversity management.

4.7 Specific Measures and Timelines

Specific measures and timelines for the Proposed Enhancement Site are outlined in the tables below.

Table 4-1. Forestry removal restoration timeline – Area A.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Preparation	Immediately post-consent	Commercial forestry.	Low ecological value.	Permanent felling and removal of timber and brash	The Applicant will commission a suitable forestry consultant to undertake the required deforestation.
	Immediately post-consent	Open/bare ground (forestry felled).	Low-moderate ecological value.	Timber and brash to be removed from the site. Approximately 6 No. plots of 0.2ha patches of scrub planted, scrub species planted at 2m intervals. Erect livestock-proof fencing to prevent overgrazing. Blocking of internal forestry drains where appropriate.	The Applicant will commission a suitable forestry consultant to undertake the required works.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Operation	Within 1-year post-consent	Revegetating peatland habitat, with a patchwork of scrub.	Moderate ecological value.	Passive action: revegetation in progress, the recolonising monitored at a series of relevés.	The Applicant will commission an ecologist with relevant experience to undertake the habitat survey.
	For remainder of operational phase	Upland bog habitat, with a patchwork of scrub.	Good ecological value. Heather dominated.	Area revegetated, the evolving species composition will be monitored at a series of relevés. Self-seeded conifers hand-pulled/cut to ground level every five years.	The Applicant will commission an ecologist with relevant experience to annually undertake the habitat survey.
After decommissioning	Ongoing	Upland bog habitat, with a patchwork of scrub.	Good ecological value	Area revegetated	n/a

Table 4-2. Forestry removal restoration timeline – Area B.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Preparation	Immediately post-consent	Commercial forestry.	Low ecological value.	Permanent felling and removal of timber and brash	The Applicant will commission a suitable forestry consultant to undertake the required deforestation.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
	Immediately post-consent	Open/bare ground (forestry felled).	Low-moderate ecological value.	Timber and brash to be removed from the site. Approximately 6 No. plots of 0.2ha patches of scrub planted, scrub species planted at 2m intervals. Erect livestock-proof fencing to prevent overgrazing. Blocking of internal forestry drains where appropriate.	The Applicant will commission a suitable forestry consultant to undertake the required works.
Operation	Within 1-year post-consent	Revegetating peatland habitat, with a patchwork of scrub.	Moderate ecological value.	Passive action: revegetation in progress, the recolonising monitored at a series of relevés.	The Applicant will commission an ecologist with relevant experience to undertake the habitat survey.
	For remainder of operational phase	Upland bog habitat, with a patchwork of scrub.	Good ecological value. Heather dominated.	Area revegetated, the evolving species composition will be monitored at a series of relevés. Self-seeded conifers hand-pulled/cut to	The Applicant will commission an ecologist with relevant experience to annually undertake the habitat survey.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
				ground level every five years.	
After decommissioning	Ongoing	Upland bog habitat, with a patchwork of scrub.	Good ecological value	Area revegetated	n/a

Table 4-3. Forestry removal restoration timeline – Area C.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Preparation	Immediately post-consent	Commercial forestry.	Low ecological value.	Permanent felling and removal of timber and brash	The Applicant will commission a suitable forestry consultant to undertake the required deforestation.
	Immediately post-consent	Open/bare ground (forestry felled).	Low-moderate ecological value.	Timber and brash to be removed from the site. Approximately 9 No. plots of 0.2ha patches of scrub planted, scrub species planted at 2m intervals. Erect livestock-proof fencing to prevent overgrazing.	The Applicant will commission a suitable forestry consultant to undertake the required works.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
				Blocking of internal forestry drains where appropriate.	
Operation	Within 1-year post-consent	Revegetating peatland habitat, with a patchwork of scrub.	Moderate ecological value.	Passive action: revegetation in progress, the recolonising monitored at a series of relevés.	The Applicant will commission an ecologist with relevant experience to undertake the habitat survey.
	For remainder of operational phase	Upland bog habitat, with a patchwork of scrub.	Good ecological value. Heather dominated.	Area revegetated, the evolving species composition will be monitored at a series of relevés. Self-seeded conifers hand-pulled/cut to ground level every five years.	The Applicant will commission an ecologist with relevant experience to annually undertake the habitat survey.
After decommissioning	Ongoing	Upland bog habitat, with a patchwork of scrub.	Good ecological value	Area revegetated	n/a

Table 4-4. Forestry removal restoration timeline – Area D.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Preparation	Immediately post-consent	Commercial forestry.	Low ecological value.	Permanent felling and removal of timber and brash	The Applicant will commission a suitable forestry consultant to

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
					undertake the required deforestation.
	Immediately post-consent	Open/bare ground (forestry felled).	Low-moderate ecological value.	Timber and brash to be removed from the site. Approximately 4 No. plots of 0.2ha patches of scrub planted, scrub species planted at 2m intervals. Erect livestock-proof fencing to prevent overgrazing. Blocking of internal forestry drains where appropriate.	The Applicant will commission a suitable forestry consultant to undertake the required works.
Operation	Within 1-year post-consent	Revegetating peatland habitat, with a patchwork of scrub.	Moderate ecological value.	Passive action: revegetation in progress, the recolonising monitored at a series of relevés.	The Applicant will commission an ecologist with relevant experience to undertake the habitat survey.
	For remainder of operational phase	Upland bog habitat, with a patchwork of scrub.	Good ecological value. Heather dominated.	Area revegetated, the evolving species composition will be monitored at a series of relevés.	The Applicant will commission an ecologist with relevant experience to annually undertake the habitat survey.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
				Self-seeded conifers hand-pulled/cut to ground level every five years.	
After decommissioning	Ongoing	Upland bog habitat, with a patchwork of scrub.	Good ecological value	Area revegetated	n/a

Table 4-5. Forestry removal restoration timeline – Area E.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Preparation	Immediately post-consent	Commercial forestry.	Low ecological value.	Permanent felling and removal of timber and brash	The Applicant will commission a suitable forestry consultant to undertake the required deforestation.
	Immediately post-consent	Open/bare ground (forestry felled).	Low-moderate ecological value.	Timber and brash to be removed from the site. Approximately 2 No. plots of 0.2ha patches of scrub planted, scrub species planted at 2m intervals. Erect livestock-proof fencing to prevent overgrazing.	The Applicant will commission a suitable forestry consultant to undertake the required works.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
				Blocking of internal forestry drains where appropriate.	
Operation	Within 1-year post-consent	Revegetating peatland habitat, with a patchwork of scrub.	Moderate ecological value.	Passive action: revegetation in progress, the recolonising monitored at a series of relevés.	The Applicant will commission an ecologist with relevant experience to undertake the habitat survey.
	For remainder of operational phase	Upland bog habitat, with a patchwork of scrub.	Good ecological value. Heather dominated.	Area revegetated, the evolving species composition will be monitored at a series of relevés. Self-seeded conifers hand-pulled/cut to ground level every five years.	The Applicant will commission an ecologist with relevant experience to annually undertake the habitat survey.
After decommissioning	Ongoing	Upland bog habitat, with a patchwork of scrub.	Good ecological value	Area revegetated	n/a

Table 4-6. Forestry removal restoration timeline – Area F.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Preparation	Immediately post-consent	Commercial forestry.	Low ecological value.	Permanent felling and removal of timber and brash	The Applicant will commission a suitable forestry consultant to

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
					undertake the required deforestation.
	Immediately post-consent	Open/bare ground (forestry felled).	Low-moderate ecological value.	Timber and brash to be removed from the site. Erect livestock-proof fencing to prevent overgrazing. Blocking of internal forestry drains where appropriate. Surface smoothing and stump flipping.	The Applicant will commission a suitable forestry consultant to undertake the required works.
Operation	Within 1-year post-consent	Revegetating peatland habitat, with a patchwork of scrub.	Moderate ecological value.	Passive action: revegetation in progress, the recolonising monitored at a series of relevés.	The Applicant will commission an ecologist with relevant experience to undertake the habitat survey.
	For remainder of operational phase	Upland bog habitat, with a patchwork of scrub.	Good ecological value. Heather dominated.	Area revegetated, the evolving species composition will be monitored at a series of relevés. Self-seeded conifers hand-pulled/cut to	The Applicant will commission an ecologist with relevant experience to annually undertake the habitat survey.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
				ground level every five years.	
After decommissioning	Ongoing	Upland bog habitat, with a patchwork of scrub.	Good ecological value	Area revegetated	n/a

Table 4-7. Forestry removal restoration timeline – Area G.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Preparation	Immediately post-consent	Commercial forestry.	Low ecological value.	Permanent felling and removal of timber and brash	The Applicant will commission a suitable forestry consultant to undertake the required deforestation.
	Immediately post-consent	Open/bare ground (forestry felled).	Low-moderate ecological value.	Timber and brash to be removed from the site. Erect livestock-proof fencing to prevent overgrazing. Blocking of internal forestry drains where appropriate. Surface smoothing and stump flipping.	The Applicant will commission a suitable forestry consultant to undertake the required works.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Operation	Within 1-year post-consent	Revegetating peatland habitat, with a patchwork of scrub.	Moderate ecological value.	Passive action: revegetation in progress, the recolonising monitored at a series of relevés.	The Applicant will commission an ecologist with relevant experience to undertake the habitat survey.
	For remainder of operational phase	Upland bog habitat, with a patchwork of scrub.	Good ecological value. Heather dominated.	Area revegetated, the evolving species composition will be monitored at a series of relevés. Self-seeded conifers hand-pulled/cut to ground level every five years.	The Applicant will commission an ecologist with relevant experience to annually undertake the habitat survey.
After decommissioning	Ongoing	Upland bog habitat, with a patchwork of scrub.	Good ecological value	Area revegetated	n/a

Table 4-8. Forestry removal restoration timeline – Area H.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Preparation	Immediately post-consent	Commercial forestry.	Low ecological value.	Permanent felling and removal of timber and brash	The Applicant will commission a suitable forestry consultant to undertake the required deforestation.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
	Immediately post-consent	Open/bare ground (forestry felled).	Low-moderate ecological value.	Timber and brash to be removed from the site. Approximately 4 No. plots of 0.2ha patches of scrub planted, scrub species planted at 2m intervals. Erect livestock-proof fencing to prevent overgrazing. Blocking of internal forestry drains where appropriate.	The Applicant will commission a suitable forestry consultant to undertake the required works.
Operation	Within 1-year post-consent	Revegetating peatland habitat, with a patchwork of scrub.	Moderate ecological value.	Passive action: revegetation in progress, the recolonising monitored at a series of relevés.	The Applicant will commission an ecologist with relevant experience to undertake the habitat survey.
	For remainder of operational phase	Upland bog habitat, with a patchwork of scrub.	Good ecological value. Heather dominated.	Area revegetated, the evolving species composition will be monitored at a series of relevés. Self-seeded conifers hand-pulled/cut to	The Applicant will commission an ecologist with relevant experience to annually undertake the habitat survey.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
				ground level every five years.	
After decommissioning	Ongoing	Upland bog habitat, with a patchwork of scrub.	Good ecological value	Area revegetated	n/a

Table 4-9. Forestry removal restoration timeline – Area I.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Preparation	Immediately post-consent	Commercial forestry.	Low ecological value.	Permanent felling and removal of timber and brash	The Applicant will commission a suitable forestry consultant to undertake the required deforestation.
	Immediately post-consent	Open/bare ground (forestry felled).	Low-moderate ecological value.	Timber and brash to be removed from the site. Approximately 11 No. plots of 0.2ha patches of scrub planted, scrub species planted at 2m intervals. Erect livestock-proof fencing to prevent overgrazing. Blocking of internal forestry drains where appropriate.	The Applicant will commission a suitable forestry consultant to undertake the required works.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Operation	Within 1-year post-consent	Revegetating peatland habitat, with a patchwork of scrub.	Moderate ecological value.	Passive action: revegetation in progress, the recolonising monitored at a series of relevés.	The Applicant will commission an ecologist with relevant experience to undertake the habitat survey.
	For remainder of operational phase	Upland bog habitat, with a patchwork of scrub.	Good ecological value. Heather dominated.	Area revegetated, the evolving species composition will be monitored at a series of relevés. Self-seeded conifers hand-pulled/cut to ground level every five years.	The Applicant will commission an ecologist with relevant experience to annually undertake the habitat survey.
After decommissioning	Ongoing	Upland bog habitat, with a patchwork of scrub.	Good ecological value	Area revegetated	n/a

Table 4-10. Forestry removal restoration timeline – Area J.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
Preparation	Immediately post-consent	Commercial forestry.	Low ecological value.	Permanent felling and removal of timber and brash	The Applicant will commission a suitable forestry consultant to undertake the required deforestation.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
	Immediately post-consent	Open/bare ground (forestry felled).	Low-moderate ecological value.	Timber and brash to be removed from the site. Approximately 1 No. plots of 0.2ha patches of scrub planted, scrub species planted at 2m intervals. Erect livestock-proof fencing to prevent overgrazing. Blocking of internal forestry drains where appropriate.	The Applicant will commission a suitable forestry consultant to undertake the required works.
Operation	Within 1-year post-consent	Revegetating peatland habitat, with a patchwork of scrub.	Moderate ecological value.	Passive action: revegetation in progress, the recolonising monitored at a series of relevés.	The Applicant will commission an ecologist with relevant experience to undertake the habitat survey.
	For remainder of operational phase	Upland bog habitat, with a patchwork of scrub.	Good ecological value. Heather dominated.	Area revegetated, the evolving species composition will be monitored at a series of relevés. Self-seeded conifers hand-pulled/cut to	The Applicant will commission an ecologist with relevant experience to annually undertake the habitat survey.

Phase	Timing	Habitat	Habitat Value	Actions	Responsibility
				ground level every five years.	
After decommissioning	Ongoing	Upland bog habitat, with a patchwork of scrub.	Good ecological value	Area revegetated	n/a

Table 4-11 Farmland restoration timeline – Area 1

Phase	Year	Habitat	Habitat Value	Action	Responsibility
Preparation	Immediately post-consent	This folio consists of short sward with approximately 10% Juncus cover. The fields are largely open grass, with patches of rushes. There are lines of conifers, interspersed willow and gorse, internally and along much of the northern and western boundaries. The boundary that runs along the southeastern side is lacking hedgerows.	Low-moderate ecological value.	Hedgerow species planted Removal of non-native trees	The Applicant will commission a contractor to undertake the required actions.
	Immediately post-consent	There will be little change to the habitat as the sward will not have had time to recover.	Low-moderate ecological value.	Stocking density management Wildlife crop sowing Cease fertilising Hedgerow maintenance	The Applicant will commission a contractor to plant the wildlife crop. The contractor / tenant will implement an adaptive grazing regime and cease the application of fertiliser.
Operation	Within 1-year post-consent	Wet grassland with good sward structure. Sward structure responds well to management and significant progress can be made in a single growing season. Integrity of hedgerows restored.	Moderate ecological value. Sward structure restored	Stocking density management Annual wildlife crop sowing.	The Applicant will commission a contractor to plant the wildlife crop.

Phase	Year	Habitat	Habitat Value	Action	Responsibility
		Wildlife seed crop significantly increasing the abundance and accessibility of passerine prey.		Cease fertilising Hedgerow maintenance	The contractor / tenant will implement an adaptive grazing regime and cease the application of fertiliser.
	For remainder of the operational phase	Wet grassland with good sward diversity and structure. Integrity of hedgerows restored and maturing. Wildlife seed crop significantly increasing the abundance and accessibility of passerine prey.	Good ecological value. Sward diversity and structure restored	Stocking density management Annual wildlife crop sowing. Cease fertilising Hedgerow maintenance	The Applicant will commission a contractor to plant the wildlife crop. The contractor / tenant will implement an adaptive grazing regime and cease the application of fertiliser.

Table 4-12 Farmland restoration timeline – Area 2

Phase	Year	Habitat	Habitat Value	Action	Responsibility
Preparation	Immediately post-consent	This area consists of wet grassland and encroaching patchy scrub. There are some patchy hedgerows to the north creating a boundary with neighbouring fields. To the southwest the edge of the area is defined by mature conifers and by a small stream to the south and east. The ground cover has long tussocks and some juncus cover	Low-moderate ecological value.	Hedgerow species planted Removal of non-native trees	The Applicant will commission a contractor to undertake the required actions.
	Immediately post-consent	There will be little change to the habitat as the sward will not have had time to recover.	Low-moderate ecological value.	Stocking density management	The Applicant will commission a contractor to plant the wildlife crop.

Phase	Year	Habitat	Habitat Value	Action	Responsibility
				Wildlife crop sowing Cease fertilising Hedgerow maintenance	The contractor / tenant will implement an adaptive grazing regime and cease the application of fertiliser.
Operation	Within 1-year post-consent	Wet grassland with good sward structure. Sward structure responds well to management and significant progress can be made in a single growing season. Integrity of hedgerows restored. Wildlife seed crop significantly increasing the abundance and accessibility of passerine prey.	Moderate ecological value. Sward structure restored	Stocking density management Annual wildlife crop sowing. Cease fertilising Hedgerow maintenance	The Applicant will commission a contractor to plant the wildlife crop. The contractor / tenant will implement an adaptive grazing regime and cease the application of fertiliser.
	For remainder of the operational phase	Wet grassland with good sward diversity and structure. Integrity of hedgerows restored and maturing. Wildlife seed crop significantly increasing the abundance and accessibility of passerine prey.	Good ecological value. Sward diversity and structure restored	Stocking density management Annual wildlife crop sowing. Cease fertilising Hedgerow maintenance	The Applicant will commission a contractor to plant the wildlife crop. The contractor / tenant will implement an adaptive grazing regime and cease the application of fertiliser.

Table 4-13 Farmland restoration timeline – Area 3

Phase	Year	Habitat	Habitat Value	Action	Responsibility
Preparation	Immediately post-consent	Mosaic of peatland habitats dominated by purple moor grass, with occasional typical heath species such as ling heather, cross leaved heath, sedges and rushes.	Moderate ecological value	Grazing regime implemented	The contractor / tenant will implement an adaptive grazing regime and cease the application of fertiliser.
Operation	Within 1-year post-consent	Suitable marsh fritillary habitat still present, but improved sward structure.	Moderate ecological value	Condition assessment of habitat, as per NBDC methodology. Grazing regime as required	The contractor / tenant will adjust grazing regime as required.
	For remainder of the operational phase	Structured sward through the site, frequent Devils bit scabious, no encroaching of scrub or invasive species, all contributing to an optimal habitat for marsh fritillary.	High ecological value	Ongoing monitoring, as per Section 5	The Applicant will ensure implementation of monitoring plan, appointing suitably qualified ecologist.

Table 4-14 Linear habitat timelines

Phase	Year	Habitat	Habitat Value	Action	Responsibility
Preparation	Immediately post-consent	Highly managed hedgerows/treelines with frequent gaps and little ground flora	Moderate ecological value	Cessation of chemical application and pause on management. Hedgerow and riparian tree planting	The Applicant will commission a contractor to plant the trees.
Operation	Within 1-year post-consent	Improved un-managed hedgerows/treelines with gaps infilled with improved connectivity.	Moderate ecological value	Ongoing monitoring and additional planting, as required.	The Applicant will ensure implementation of monitoring plan, appointing suitably qualified ecologist.

Phase	Year	Habitat	Habitat Value	Action	Responsibility
	For remainder of the operational phase	High diversity and continuous hedgerows and riparian corridors with high ground layer floral diversity and species diverse canopies.	High ecological value	Ongoing management, monitoring and additional planting, as required, as per Section 5	The Applicant will ensure implementation of monitoring plan, appointing suitably qualified ecologist.

5. MONITORING

A site-specific monitoring and evaluation programme is necessary to ensure that the success of the proposed measures remains long-term. It will also assist in situations where the habitat establishment may not have been successful by providing evidence of shortcomings, allowing a revised management plan to be formulated.

Monitoring results will be reported by the Project Ecologist within an Annual Environmental Report. Reports detailing the monitoring works carried out, the results obtained and a review of their success, along with any suggestions for amendments to the plan will be prepared. The BMEP will be updated and amended where required to improve the efficacy of the enhancement measures.

Full details on the proposed monitoring measures for hen harrier are provided in Appendix 7-7 Bird Monitoring Programme. A summary of the monitoring measures at the Proposed Enhancement Site is provided in the table below.

Table 5-1 Monitoring measures

Feature	Frequency	Measure
Hen Harrier Habitat Enhancement Lands	Annually	› **Breeding raptor surveys**: The Proposed Hen Harrier Habitat Enhancement Areas will be the subject of ongoing bird monitoring during the lifetime of the Proposed Project to ensure it is offering supporting habitat for breeding hen harrier. The ongoing monitoring will take place during the breeding bird season. The monitoring will seek to identify whether hen harrier are utilising the areas under active management for foraging and will be conducted by way of vantage point surveys. These surveys will be undertaken monthly from March to August, following Hardey *et al.* (2013), each year. › **Passerine monitoring surveys** will be undertaken over two visits between April to June, following CBS methodology, annually at the Proposed Hen Harrier Habitat Enhancement Areas. The monitoring aims to investigate to what extent measures e.g. seed crops, increase the availability of prey species for hen harrier. › **Habitat mapping**: The Proposed Hen Harrier Habitat Enhancement Areas will be accurately mapped and monitored annually to check that the areas covered have not altered in size and that the grazing regime that is in place is maintaining the current state of these habitats (i.e. neither poaching nor overgrowth of open areas is occurring). As well as mapping, this monitoring will be recorded by means of fixed-point photography. › **Habitat scoring**: The Proposed Hen Harrier Habitat Enhancement Areas will be scored based on the Hen Harrier Project scorecards for Bog and Heath (Areas A, B, C, D, E, F, G, H, I and J) and Wet Grassland (Areas 1 and 2). Scoring will be carried out based on the methods outlined in

Feature	Frequency	Measure
		the Hen Harrier Project guidance documents[8] for each habitat type. Scoring will be carried out between May 15th and August 31st as per these methods. › **Vegetation sampling**: A number of fixed relevé sites (i.e. permanent quadrats) will be set up in the Proposed Hen Harrier Habitat Enhancement Areas. Data will be recorded prior to the commencement of the BMEP activities. The character of each relevé will be recorded (e.g. species proportions present using Domin scale, vegetation structure) and photographs will be taken of each relevé from a fixed point. These relevés will then be re-examined annually following the commencement of the BMEP in place to establish the extent of habitat improvement resulting from management practices.
Marsh Fritillary and Species Diverse Wet Grassland Habitat	Annually until the target habitats have been sufficiently established and have given consistent results for 3 consecutive years after the establishment phase. Once the target habitats have been successfully established, monitoring can be carried out every other year (years 5, 7, 10, 15 and 20 post-establishment) for the duration of the development. At the end of each phase of monitoring as outlined above, the Project Ecologist will assess the need for and frequency of further monitoring of the target habitats in agreement with the wind farm operator.	› Marsh fritillary habitat condition assessments will be undertaken throughout the target areas, as per NBDCs marsh fritillary monitoring scheme[9]
Peatland enhancement		High level monitoring assessments will be carried out within the target area for the first 5 years post initial restoration works. These will serve to identify if the restoration works are progressing as planned, in the potential absence of positive habitat condition assessments, which may take some years to establish. 10 no. 4m x4m plots will be established within Area G, with 15 in Area F, within which the following metrics will be recorded: › Water levels › Cover of non-native species › Presence of sphagnum or other indicator species (yes or no) › Bare peat cover These metrics present the foundations of the proposed measures detailed in this report, and therefore, the potential efficacy of the targeted blanket bog restoration. In conjunction with the high-level assessments, vegetation monitoring will be undertaken following the methodology set out in Irish Wildlife Manual No. 79 *Guidelines for a national survey and conservation assessment of upland vegetation and habitats in Ireland Version 2.0*" (Perrin et al, 2014) (IWM 75) to provide a detailed assessment of the blanket bog restoration for the operational life of the prospective development. A

[8] *Wet grassland - Hen Harrier Programme Field Guidance for scoring Wet Grasslands ver 2. June 2021*
Bog and heath - Hen Harrier Programme Field Guidance for scoring Bog and Heath ver 2. June 2021
[9] *NDBCs marsh fritillary condition assessment* https://biodiversityireland.ie/app/uploads/2025/11/Marsh-Fritillary-Habitat-Condition-Form_v32025.pdf

Feature	Frequency	Measure
		minimum of five permanent vegetation monitoring plots, the location of which will be selected to provide a comprehensive coverage of the site condition, will be established in each Area G and Area F. Cover and abundance of vascular and bryophyte species will be recorded and it will be assessed as per the condition assessment monitoring criteria as per those that are set out in Appendix V of the IWM 75 in relation to Blanket Bog (7130). Fixed point photography, and aerial imagery collection will also be undertaken at each plot. Monitoring will commence following the completion of the initial restoration works and will be undertaken annually for a period of five years. Following this, it will be surveyed every five years throughout the lifetime of the Proposed Project. Where monitoring reveals that actions need to be undertaken to ensure the success of the project in achieving its aims of restoring Blanket Bog habitat adaptive measures such as dam maintenance, further surface smoothing, seedling removal or furrow/drain blocking will be undertaken as necessary. Recommendations for ongoing or remedial management required will be specified within the Annual Environmental Report.
Linear habitats		› The entire enhancement area will be walked/surveyed to ensure all planted trees are healthy. Should dead/dying trees be identified, additional planting will be required to fill any gaps.

The efficacy of the Plan measures employed will be reviewed annually following the commencement of the Plan. Analysis of the data collected will be the basis for a review of the measures and techniques employed. Should any adjustments to the Plan be deemed necessary or advisable, these will be undertaken in consultation with the NPWS prior to any alterations to the Plan.

The Annual Environmental Report, detailing the monitoring works carried out, the results obtained and a review of their success, along with any suggestions for amendments to the Plan will be prepared and submitted to the planning authority annually following commencement of the Plan.

5.1 Auditing

The Applicant will ultimately be responsible for the implementation of the management measures and audits. Audits will be required to ensure the effectiveness of the BMEP. They are essential to ensure adequate plan quality, compliance, and control. Audits will be based on a field inspection and the assessment of the farm plans and forestry lands. The results will be included within an Annual Environmental Report.

The farm plan will be audited each year. The audit will assess:

- Objectives of the farm plan;
- Implementation of the plan; and

- Adherence to requirements of the farm plan.

The farm plans and forestry lands will be reviewed annually.

6. IMPLEMENTATION

As previously discussed, this BMEP will be implemented prior to the commissioning of the Proposed Project. The BMEP measures will be implemented as follows.

Forestry Areas

The Applicant will employ a suitably qualified contractor(s) to carry out the measures as detailed in Section 4.

A meeting will be held with the contractor to outline the general aims, objectives and requirements of the BMEP for Areas A, B, C, D, E, F, G, H, I and J.

Site-specific felling methods will be devised between the Applicant and their forestry consultant.

Farmland and Peatland Areas

- The Applicant will engage a suitably qualified contractor to carry out the measures as detailed in Section 4.
- A meeting will be held with the contractor to outline the general aims, objectives and requirements of the BMEP for Areas 1, 2 and 3.
- A farm plan will be prepared which will outline the individual prescriptions required to ensure the implementation of this plan. The plan will include a map of the landholding, and a prescriptive list of actions to be undertaken, and the time of year when the necessary works and management measures are to be undertaken. It is proposed that a suitably qualified environmental scientist or ornithologist/ecologist will be engaged by the Applicant to oversee the implementation of this plan generally and the farm management plan in particular. The implementation will likely require the input of agricultural advisors including with regard to appropriate stocking levels.

6.2 Responsibility for Implementing the Measures

The Applicant has legal agreements with the landowners of the Proposed Hen Harrier Habitat Enhancement Areas that allows the implementation of the land management measures to benefit the hen harrier by providing foraging habitat, and additional habitats with increased and improved biodiversity in general in order to benefit passerine species, thereby increasing prey for the hen harrier. In the event that a farmland landowner withdraws from their relevant legal agreement for any particular reason, similar replacement lands will be locally sourced and acquired through legal agreement.

The Applicant will be responsible for overseeing the preparation of the farm/landholding level plans which will be in strict accordance with measures outlined in Section 4. The Applicant will be responsible for providing the landowner with an agricultural consultant and ecologist.

The Applicant will be responsible for preparing and overseeing the preparation of the farm plans and a specific suite of measures for the areas of forestry. The Applicant will also be responsible for auditing the land holdings, determining if the measures are achieving the desired results and, where necessary, amending the plan to achieve the required results. The farm plan and auditing programme will be in place for the lifetime of the Proposed Project.

The Applicant or their agents will also be responsible for ensuring compliance with planning conditions and engaging with statutory bodies and advisory agencies as required.

6.3 Next Steps

Assuming that the Proposed Project receives a grant of planning permission the next steps from the perspective of implementation of the BMEP are as follows:

1. *Prepare the tender documents and issue tender notice for the agricultural and ecological specialists to administrate and implement the Plan.*
2. *Appoint the successful tenderer and agree final terms including scope of work.*
3. *Apply for felling licence for forestry in Areas A, B, C, D, E, F, G, H, I and J.*
4. *Appoint forestry company to carry out deforestation upon receipt of licence.*
5. *Toolbox talk with forestry operators prior to any works to ensure all personnel are fully informed of the methodologies required for operation within the Proposed Enhancement Site.*
6. *Meeting with the appointed tenant / contractor of the farmland areas (Area 1 and 2) to detail required measures under the Plan.*

7. CONCLUSION

This BMEP sets out the measures to be implemented to ensure that the Proposed Project will result in a net gain in biodiversity, specifically with regard to hen harrier and marsh fritillary habitat as well as a net gain in linear habitats.

This BMEP has set out measures to be implemented during establishment and management phases to ensure that the measures are successful, as well as regular monitoring and reporting by an ecologist to ensure the success of the prescribed measures.

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