APPENDIX 6-4

Biodiversity Enhancement and Management Plan

Table of Contents

1. INTRODUCTION 1
1.1 Background 1
1.2 Objectives of the BEMP 1
1.3 Statement of Authority 1
2. ECOLOGICAL BASELINE 3
2.1 Habitats 3
2.1.1 Annex I Habitats 3
2.1.2 Fauna 3
3. BIODIVERSITY ENHANCEMENT MEASURES 4
3.1 Overview 4
3.2 Enhancement Measures 6
3.2.1 Protection and maintenance of limestone pavements and associated species rich grassland habitat 6
3.2.2 Enhancement of species diverse grassland 6
3.2.3 Native Hedgerow 8
3.2.3.1 Hedgerow Planting 8
3.2.3.2 Hedgerow Management 9
3.2.4 Bat Roosts 9
3.2.5 Invasive Species 10
4. MONITORING 11
4.1 Responsibility for Implementing the Measures 14
4.2 Conclusion 14
BIBLIOGRAPHY 15

1. INTRODUCTION

1.1 Background

MKO have prepared a Biodiversity Enhancement and Management Plan (BEMP) to support the Environmental Impact Assessment Report (EIAR) for the Killoshulan Wind Farm in Co. Kilkenny (the Proposed Project), which includes 10 no. turbines and all associated infrastructure and works. The full description of the Proposed Project is detailed in Chapter 4 of the EIAR. The approximate centre of the Proposed Wind Farm site is located at grid reference ITM X 634702 Y 666216.

This BEMP has been prepared to outline the proposed biodiversity enhancement measures associated with the Proposed Project. This BEMP also outlines how the Proposed Wind Farm has been designed to offset any loss of habitat or loss of faunal supporting habitat.

With biodiversity in global decline, and with due consideration of development policy shifts towards avoidance of biodiversity net loss and a drive towards biodiversity net gain, this BEMP has been prepared in respect of the Proposed Project to take the opportunity to provide a net gain in biodiversity within the Proposed Wind Farm site. The objectives of this BEMP, set out below, align with the goals of the 4th National Biodiversity Action Plan.

1.2 Objectives of the BEMP

The objectives of this BEMP are as follows:

- To offset any losses of important habitats as a result of the Proposed Project and to ensure an overall net gain in supporting habitats for fauna throughout the Site.
- To set out the required measures to protect existing high value habitats within the Proposed Wind Farm site.
- To safeguard, maintain and monitor existing and potential species rich grassland throughout the Site.
- Planting and management of native hedgerow habitat within the Proposed Wind Farm site in order to increase and bolster wildlife corridors.
- To provide additional foraging areas and nesting opportunities for pollinator species, nesting birds, small mammals etc.
- To provide a management and monitoring plan to ensure the success of the proposed measures.

Full details on the current ecological baseline of the Proposed Project site are provided in Section 6.4 of Chapter 6 (Biodiversity) of the EIAR.

1.3 Statement of Authority

This report has been prepared by Andrew McCarthy (BSc.) and reviewed by Pádraig Desmond (BSc.).

Andrew McCarthy

Andrew McCarthy is a Practitioner ecologist with MKO with over 1 year' experience with the company as well as being an ecology intern during the summer of 2024. Andrew holds BA (Hons) in Ecology and Environmental Biology. Prior to taking up his position with MKO in September 2025, Andrew worked as an education officer in Fota Wildlife Park during the summer of 2023.Andrew's key strengths and areas of expertise are in bird identification and general ecology. Since joining MKO Andrew has been involved in a significant range of projects such as rhododendron mapping in killarney national

park, e-DNA surveys for white clawed cray fish and freshwater pearl mussel, kick sampling, multidisciplinary site walkovers, botanical surveys, mammal surveys and a wide range of bat and bird surveys.

Pádraig Desmond

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.

The baseline ecological surveys were conducted by MKO ecologists; Deepali Mooloo (B.Sc., M.Sc.), Andrew McCarthy (B.Sc.), Aisling O'Sullivan (B.Sc., M.Sc.) and Pádraig Desmond (B.Sc.). All surveyors have relevant academic qualifications and are competent in undertaking the habitat and ecological assessments.

2. ECOLOGICAL BASELINE

Multidisciplinary ecological surveys were undertaken by MKO between May, July and August 2026, as detailed within the EIAR submitted as part of the application. A detailed desk study was also undertaken. A high-level overview of habitats and fauna within the Proposed Wind Farm site is provided below.

2.1 Habitats

A detailed account of the habitats, including a habitat map, and associated species found within the Proposed Wind Farm site is provided in Section 6.4 of the EIAR (Chapter 6: Biodiversity). The habitats were recorded within the Proposed Wind Farm site are presented in Table 2-1 below.

Table 2-1 Habitats recorded within the Site.

Habitat Name	Fossitt Code
Conifer plantation	WD4
Improved agricultural grassland	GA1
Buildings and artificial surfaces	BL3
Wet grassland	GS4
Scrub	WS1
Hedgerows	WL1
Treelines	WL2
Stone walls and other stonework	BL1
Recolonising bare ground	ED3
Spoil and Bare Ground	ED2
Drainage ditches	FW4
Eroding/ upland rivers	FW1
Exposed calcareous rock	ER2
Dry calcareous and neutral grassland	GS1

Each habitat listed above is fully described in Section 6.4.1 of Chapter 6: Biodiversity of the EIAR.

2.1.1 Annex I Habitats

The following Annex I habitat (as listed under the Habitats Directive) is present within the Proposed Wind Farm site:

- Limestone pavement [8240]

The Proposed Project has been designed to ensure that there will be no loss of this Annex I habitats. This habitat was recorded ~100m south east of T4.

2.1.2 Fauna

A number of protected species have been recorded using the Proposed Wind Farm site. It is known that bat species, badger, red squirrel and bird species also use the Proposed Wind Farm site. Otter is likely to use the watercourses within the Proposed Wind Farm site while the Proposed 110kV Underground Cabling crosses both the River Barrow and River Nore SAC and the River Nore SPA, which are designated for otter and kingfisher, respectively.

Full details on protected fauna are provided in Section 6.4.2 of Chapter 6: Biodiversity of the EIAR.

3. BIODIVERSITY ENHANCEMENT MEASURES

3.1 Overview

Areas within the Proposed Wind Farm site have been selected for biodiversity enhancement measures as part of the Proposed Project to offset any habitat losses and to enhance the Proposed Wind Farm site for species and habitats known to occur within the area. An overview map of the proposed biodiversity enhancement areas is provided in Figure 3-1.

- **Protection and maintenance of limestone pavements and associated vegetation**

  Important habitat identified within the Proposed Wind Farm site and in close proximity to the proposed works, such as limestone pavement and associated species rich grasslands, will be safe guarded against inadvertent encroachment or other impacts as a result of the construction of the Proposed Project.

- **Management of species rich grassland habitat within the Proposed Wind Farm site**
  As shown in Figure 3-1, approximately 11.7 ha of species rich grassland habitat identified within the western extent of the Proposed Wind Farm site. This will be managed during the operational phase of the Proposed Project to promote increased biodiversity and potentially create the priority Annex I habitat Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (*important orchid sites) (6210). Enhancement will include safeguarding existing species rich grassland habitat within the Proposed Wind Farm site during construction, in addition to implementing low-intensity management and scrub clearance measures during the operation of the Proposed Project.

- **Native hedgerow management, bolstering and planting**
  It is proposed to manage and bolster existing hedgerow and plant new native hedgerows within the Proposed Wind Farm site, as shown on Figure 3-1. Newly planted trees will be of native origin and will be of advanced nursery stock where possible. This measure will create additional habitat for commuting and foraging fauna, including bats, badger and other protected fauna, within the Proposed Wind Farm site, as well as increasing connectivity within the Proposed Wind Farm site and to the wider environment.



Map Legend

- EIAR Site Boundary
- Proposed Grassland Management
- Bolstering Hedgerows
- New Hedgerows

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Drawing Title
Proposed Biodiversity Enhancement

Project Title
Killoshulan Wind Farm

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AMc	PD
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3.2 Enhancement Measures

The sections below provide detail on how to implement the proposed biodiversity enhancement measures within the Proposed Wind Farm site.

To ensure the measure within this report will be correctly implemented and effective monitoring is undertaken, the application will appoint a Project Ecologist to oversee both the measures and monitoring plan detailed in this report. The appointed Project Ecologist will be qualified and will have suitable experience in botanical assessments and habitat management.

All measures detailed in Section 3.2.2 and Section 3.2.3 will be implemented immediately post planning, should consent be granted, prior to any proposed tree felling associated with the Proposed Project, to ensure that they have had maximum opportunity to develop into the targets of this report. This will ensure that, where compensation measures are required, any losses of habitat to facilitate the Proposed Project will be mitigated in advance, minimise the impacts of such losses.

3.2.1 Protection and maintenance of limestone pavements and associated species rich grassland habitat

Existing limestone pavement and associated species rich grassland habitats that occur adjacent to proposed works areas will be fenced off in advance of construction of the Proposed Wind Farm. These are presented in Figure 6-4 of Chapter 6 of the EIAR.

These areas were identified during ecological surveys of the Proposed Wind Farm site, and the Proposed Wind Farm was designed to avoid these areas. The fencing will contain signage strictly prohibiting entry to these areas. This will denote the area where strictly no machinery, storage of materials or entry of construction site personnel will be permitted. The protective fencing will be inspected and signed off by the supervising Ecological Clerk of Works (ECOW) prior to commencement of the Proposed Project. The following protective measures will be in place:

- A pre-commencement survey will be carried out to confirm whether any species rich grassland has been established between planning being granted (if approved) and the commencement of construction works.
- Existing species rich grassland will be fenced off with a minimum buffer of 5 metres.

Further protective mitigation measures for species rich grassland and other habitats during construction phase of the Proposed Project are outlined in Chapter 6 of the EIAR.

3.2.2 Enhancement of species diverse grassland

It is proposed that areas of Dry calcareous and neutral grassland (GS1) identified in the western section of the Proposed Wind Farm site, as shown in Figure 3-1, are managed to promote greater floral diversity and to target the establishment of the Annex I habitat: Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (*important orchid sites) (6210). This Annex I habitat is the single Qualifying Interest (QI) of the adjacent Spahill and Clomantagh Hill SAC (000849).

While this grassland does not conform to the above-mentioned Annex I grassland due to insufficient indicator species and encroaching gorse Scrub (WS1), it did present with several indicator species of this protected habitat. These included bird's-foot trefoil (*Lotus corniculatus*), mouse-ear hawkweed (*Pilosella officinarum*), lady's bedstraw (*Galium verum*), and creeping thyme (*Thymus polytrichus*). Further details in presented in Section 6.4.1.1 of Chapter 6 of the EIAR and in the accompanying Botanical Report in Appendix 6-1.

The grasslands will be included as part of the Monitoring Plan for the Proposed Project (Section 4 below) and will be subject to the below listed low-intensity management measures. During the course of the Monitoring Plan, throughout the operation of the Proposed Wind Farm, the Project Ecologist may prescribe alternative management measures for these areas in order to maintain or increase their value for biodiversity:

- The area of Dry calcareous and neutral grassland (GS1) proposed for ongoing enhancement will be fenced off prior to construction to help better manage livestock grazing and reduce potential encroachment of farm machinery. Biodiversity enhancement area signs will be erected on the fencing.
- Prior to the construction of the Proposed Project, encroaching scrub within the target area will be manually cut back using hand machinery only. No heavy machinery will be used within this area. Total woody cover will be maintained to below 5% across the area.
- The application of fertilizers or pesticides in the target area will cease immediately post consent, and will not be used for the duration of the operational phase of the Proposed Project.
- Only low intensity grazing will be implemented in this area. Utilization of light cattle or native pony grazing from late August to November will be used only. This removes biomass and limits competitive grasses without exposing delicate soils. Cattle and horses create more diversity of structure. Sheep grazing should be avoided as sheep electively target choice herbs and create an overly uniform sward.
- Remove all livestock from April to July. This allows the Green-winged orchid, Frog, and Common Spotted-orchids to flower and set seed undisturbed.
- If localized mowing is used instead of grazing, rake and remove all cuttings immediately to prevent nutrient enrichment.
- The sward will be maintained to ensure a structured height, with at least 30% of the sward stays between 5cm and 40cm.
- There will be no tree planting, supplementary livestock feeding, or material storage within the target area.
- A relatively novel approach to grassland restoration is via the use of ‘Green Hay’. This technique involves freshly cut green hay from a species-rich meadow (donor field) being collected and then strewn on a cut species-poor field (receptor field), ideally on the same day. This method is a way of increasing plant diversity in the receptor field by transferring the seeds from the wild flowers & grasses growing in the donor field. Given that the Spahill and Clomantagh Hill SAC is located directly adjacent to this proposed enhancement area, which is designated for Semi-natural dry grasslands and scrubland facies on calcareous substrates (6210), a donor field from this SAC would be an ideal candidate for this approach.

3.2.3 Native Hedgerow

It is proposed to plant new hedgerow within the Site, as shown in Figure 3-1. 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 gappy or poor-quality hedgerow habitats within the Site. Proposed hedgerows to be bolstered are indicated in Figure 3-1.

These measures are first intended to mitigate to losses of habitats assessed as Local Importance (higher value) associated with the construction phase of the Proposed Project. The proposed bolstering and planting of Hedgerow (WL1) habitat will mitigate the permanent loss of 1.34 km of linear features within the Proposed Wind Farm site by improving the foraging, commuting and breeding corridor network for protected fauna utilizing the Proposed Wind Farm site.

In total, there will be a total of 225m of new, and a total of 3.38 km of bolstered/infilled Hedgerow (WL1) within the Proposed Wind farm site.

Species selected for both new and bolstered Hedgerows (WL1) 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[1]. 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.

Species to be planted for both hedgerows 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)

3.2.3.1 Hedgerow Planting

The below planting methods will apply to all hedgerow planting:

- 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.
- When planting trees, tree planting density will be kept sufficiently low to allow establishment of ground story vegetation.
- Trees will be pit planted, in areas of clear vegetation. This involves using a spade to dig a hole with trees roots placed in the centre. Soil is then placed around the tree and firmed in, ensuring the tree is upright.

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

- Trees will be planted within a vegetation-free area, at least 1m in diameter.
- 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.
- Rabbit, hare, and deer proof tree guards will be placed around each new tree.

3.2.3.2 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,
- 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.
- Filed margins will be allowed to establish at the base of all hedgerows subject to this BEMP. This is an often-overlooked habitat as it is often considered as part of the hedgerow. Field margins are habitats of significant importance to a range of wildlife, forming a transitional buffer from hedgerows to other habitats. They are grassland habitats which provide important sources of shelter and food for rural wildlife, including invertebrates, birds, and non-volant mammals, as well as nesting habitat for ground roosting birds. These are typically rare as farming practices naturally aim to utilise all land available for both livestock and tillage.
- This will be achieved by a stock fence 5 meters out from the edge of hedgerows subject to this BEMP, within which no chemicals or fertilizers will be spread and will be cut for hay or grazed once a year (August/September). Overtime, native flora species will recolonise, and the long sward will provide foraging, commuting, and nesting habitat for a range of species.

3.2.4 Bat Roosts

As per Section 4.2.1 and Section 4.3.2.1 of Appendix 6-2 of the EIAR, a number of confirmed bat roosts were identified within the Proposed Wind Farm during the 2022 and 2025 surveys.

As per Section 4.2.1, during the 2022 surveys, three confirmed bat roosts were identified during emergence/re-entry surveys. The confirmed roosts were identified within Farm Complex – farmhouse, sheds and outbuildings (K22A) supporting three Common pipistrelle, Round Tower and outbuildings group (K22C) supporting four Brown long-eared bats and Inhabited Dwelling (K22E) supporting two Common pipistrelle. These roosts were located approximately 230m, 370m and 2,700m from the nearest turbine, respectfully. These structures were assessed as having *Moderate* bat roost potential in accordance with Collins (2016).

As per Section 4.3.2.1, during the 2025 surveys, three confirmed bat roosts were identified within the Farm Complex (K22A), comprising of 57 Soprano pipistrelles recorded emerging in May 2025. This roost was confirmed with subsequent emergence surveys in July and August 2025. The emergence survey in July 2025 identified 37 Soprano pipistrelle and 2 Common pipistrelle roosting in the structure, while the emergence survey in August 2025 identified 8 Soprano pipistrelle and 1 Leisler's bat roosting in the structure. Farm Complex (K22A) was located approximately 230m from the nearest proposed turbine (T2). A further previously identified roost located within the Round Tower (K22C), approximately 370m from the nearest proposed turbine (T2), was re-confirmed during a daytime roost inspection in April 2025 to contain a Brown long-eared bat roost. A further emergence survey in July 2025 identified approximately 20 bats (*Myotis* spp., Soprano pipistrelle and Common pipistrelle) emerging and re-entering the structure. Both structures were assessed as having *Moderate* bat roost potential in accordance with Collins (2023).

No bat roost will be directly impacted by the Proposed Project but to ensure the project has no significant effects on bats utilising the site, a monitoring program has been provided in the Bat Report in Appendix 6-2 of the EIAR and summarised in Section 4 of this report. This allows to adaptive management measures to be implemented as necessary.

3.2.5 Invasive Species

No species listed under the First Schedule of the European Union (Invasive Alien Species) Regulations 2024 (S.I. 374 of 2024) and the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011) were recorded within the Proposed Wind Farm site during the surveys undertaken.

However, should any invasive species listed under the First or Third Schedule of the above regulations be identified within the target enhancement areas of this report during the proposed monitoring, as detailed in Section 4, this will be noted in the annual monitoring report and the proposed ecologist will prepare a site-specific Invasive Species Management Plan for the control of these species.

4. 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 successes, along with any suggestions for amendments to the plan will be prepared. The BEMP will be updated and amended where required to improve the efficacy of the enhancement measures.

Table 4-1 Monitoring of BEMP measures.

Feature	Frequency	Measures
Species Rich Grassland Management	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 Proposed Project. 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.	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 the enhancement area, within which the following metrics will be recorded: › Cover of non-native species › Presence indicator species (yes or no) › Encroaching scrub cover › Dominance of perennial ryegrass or other grasses These metrics present the foundations of the proposed measures detailed in this report, and therefore, the potential efficacy of the targeted species rich grassland restoration. In conjunction with the high-level assessments, vegetation monitoring will be undertaken following the methodology set out in the monitoring and assessment of three EU Habitats Directive Annex I grassland habitats." *Irish Wildlife Manuals* 102 (Martin et al, 2018) (IWM 102) to provide a detailed assessment of the species rich grassland enhancement for the operational life of the Proposed Project. A 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 the enhancement area. Cover and abundance of grassland 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 1 of the IWM 102 in relation to Semi-natural dry grasslands & scrub facies on calcareous substrates (6210); important orchid sites (*6210). Fixed point photography, and aerial imagery collection will also be undertaken at each plot.

Feature	Frequency	Measures
		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 enhancing species rich grassland habitat, adaptive measures such as appropriate livestock grazing, scrub management and dead plant removal will be undertaken as necessary. Recommendations for ongoing or remedial management required will be specified within the Annual Environmental Report.
Native Hedgerow Management	To confirm that the proposed habitat creation and enhancement has been successful, these habitats will be monitored by a qualified ecologist at the following intervals: › 6 Months, › 1 Year, › 2 Years, › 3 Years, › 4 Years, › 5 Years. At the end of the 5-year monitoring plan 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.	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.
Bats	As per the Bat Report in Appendix 6-2 of the EIAR, operational monitoring will be undertaken within the Proposed Wind Farm site. Monitoring proposed includes: › Carcass searches › Acoustic monitoring These are proposed to be undertaken over years 1, 2, and 3 of the operational phase of the Proposed Project. At the end of Year 3, a synthesis report will be prepared and submitted to the Planning Authority by the appointed bat ecologist on behalf of the wind farm operator. Where	Full details are provided in Appendix 6-2. **Fatality monitoring** Carcass searches will be undertaken to quantify bat mortality associated with turbine operation. In accordance with NatureScot (2021) and BCI (2026), professionally trained canine search teams will be utilised as the primary method of carcass detection. This reflects the reduced efficiency of human-led searches in Irish upland and vegetated landscapes. Searches will be undertaken at all turbines within a radius of **92.5 m from the turbine base**, equivalent to half the turbine tip height (185 m), in accordance with best practice guidance.

Feature	Frequency	Measures
	mortality remains below the defined threshold, the curtailment regime in place at that time will be maintained. Additional post-construction monitoring may be undertaken at five-year intervals from Year 5 of operation onwards, subject to the outcomes of the initial monitoring programme and agreement with the relevant authorities.	Search frequency will be as follows: › **Peak season (mid-August to October):** weekly searches, › **Standard season (April to mid-August):** fortnightly searches. Carcass persistence (scavenger removal) trials and searcher efficiency (SEEF) trials will be undertaken to allow robust estimation of collision mortality. › **Carcass persistence trials:** A minimum of 10 trial carcasses will be deployed and monitored (e.g. using camera traps or regular checks) to determine mean persistence time. › **Searcher efficiency trials:** Searcher efficiency trials will be undertaken to quantify the probability of carcass detection. These trials will involve the placement of trial carcasses within the search area and subsequent assessment of detection rates by the survey team. The results will be used to derive site-specific correction factors for the estimation of collision mortality. These data will be used to correct observed carcass counts and calculate realistic estimates of bat mortality. **Acoustic monitoring** Post-construction acoustic monitoring will be undertaken to assess bat activity patterns and to validate the effectiveness of the curtailment strategy. Static detectors will be deployed at ground level in accordance with the pre-construction survey design to allow direct comparison with baseline conditions. In addition, if practical to do so three turbines will be fitted with nacelle-mounted ultrasonic detectors, in accordance with BCI (2026) guidance (minimum one detector per three turbines). These detectors will record bat activity at rotor height. Nacelle-level activity will be compared with baseline and ground-level data to assess bat activity in relation to turbine operation. Analysis will focus on: › seasonal patterns of activity, › within-night activity (particularly sunset and sunrise periods), and activity in relation to weather conditions and turbine operation

4.1 Responsibility for Implementing the Measures

Should the Proposed Project be granted, the Applicant will be bound by the permission and associated conditions, as well as the mitigations and measures detailed in the EIAR, including the proposals for habitat loss offsetting and biodiversity enhancement proposals detailed in this document.

The Applicant will be responsible for overseeing the preparation of the farm/landholding level plans and 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 farm plans, as well as 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 monitoring programme will be in place for the lifetime of the Proposed Project.

4.2 Conclusion

This BEMP sets out the measures to be implemented to ensure that the Proposed Project will offset any associated habitat loss, will ensure the enhancement of existing habitats within the Proposed Wind Farm site, while also allowing for a net gain in biodiversity to be achieved throughout the Proposed Wind Farm site.

Habitats classified as being of Local Importance (higher value) and above that will be lost within the Site to facilitate the construction of site infrastructure includes approximately 1.34km of linear habitat, predominantly comprised of Hedgerows (WL1) and Treelines (WL2).

The objectives of this BEMP will be achieved through the measures outlined in Section 3 of this report which included for the enhancement and management of approximately 11.7ha of grassland habitat, the establishment and management of 225m of new native hedgerow habitat, in addition to the bolstering of approximately 3.38km of native hedgerow habitat. This equates to an addition and improvement of approximately 3.6 km of commuting habitat for fauna throughout the Proposed Wind Farm site. It also provides for monitoring of the target habitats by an ecologist to ensure the success of the measures outlined in the BEMP.

Following its successful implementation and monitoring, this BEMP will result in a significant improvement in supporting habitat for wildlife throughout the Site, including, bat and bird species by providing improved feeding, foraging and breeding habitat.

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