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Biodiversity Management and Enhancement Plan

Proposed Briskalagh Renewable Energy Development, Co. Kilkenny

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DOCUMENT DETAILS

Client:	**Briskalagh Ltd**
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Prepared By:	**MKO** **Tuam Road** **Galway** **Ireland** **H91 VW84**

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Rev	Status	Date	Author(s)	Approved By
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Table of Contents

RECEIVED: 03/01/2025

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1. INTRODUCTION

1.1 Background

This Biodiversity Management and Enhancement Plan (BMEP) has been prepared in support of the Environmental Impact Assessment Report (EIAR) produced for the proposed Briskalagh Renewable Energy Development.

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 habitat or loss of faunal supporting habitat.

Biodiversity enhancement measures outlined in this BMEP include the following:

- Increase the ecological condition of 3640m of existing hedgerow that will be heavily managed via cutting and enhancing through additional planting of native species.
- Approximately 270m of new native hedgerow will be created within the Proposed Wind Farm site.
- It is proposed to create a new native riparian buffer zone adjacent the Tullaroan stream within the Proposed Wind Farm site. Approximately 1.7ha of riparian planting is proposed to be planted on both banks of the Tullaroan.
- Installation of Red squirrel, Pine Marten and bat breeding and roosting boxes within the existing woodland to create additional nesting habitat for protected mammals.

Woodland and linear vegetation losses associated with construction of the Proposed Project infrastructure and turbine bat buffers (as per NatureScot guidelines) are shown on Figure 1-1. It is anticipated that 1388m of existing hedgerow habitat and 0.73ha of Mixed Broadleaved/Conifer Woodland (WD2) will be removed to accommodate the Proposed Project

The proposed riparian woodland planting area and linear vegetation replanting areas are shown on Figure 1-2.

1.2 Statement of Authority

This report has been prepared by Colin Murphy (B.Sc., (Ecology), M.Sc.) and Fiona Killeen (B.Sc., (Env)) and reviewed by Corey Cannon (B.Sc, M.Sc CEcol MCIEEM) and John Hynes (B.Sc. Env., M.Sc., MCIEEM). Corey is a Project Director (Ecology) at MKO, she is also a Chartered Ecologist and Full Member of CIEEM. Corey has over ten years' consultancy experience. John is Ecology Director at MKO with over 12 years professional consultancy experience. Colin is a Project Ecologist at MKO and has over 4 years' professional consultancy experience. Fiona is an experienced Practitioner Ecologist with almost 2 years' professional consultancy experience. The baseline ecological surveys were undertaken across multiple dates in 2023 and 2024 by Fiona Killeen, Tom Peters (B.Sc., M.Sc.), Rachel Minogue (B.Sc., (Env)). Rachel and Tom are Ecologists with MKO. Bat ecologists Ryan Connors (B.Sc., M.Sc.), Laura Gránicz (BSc., MSc.), Nora Szijarto (B.Sc., M.Sc.) and David Culleton (BSc., MSc.) conducted specific bat surveys within the Site between 2023 and 2024. All surveyors have relevant academic qualifications and are competent in undertaking habitat and ecological assessments.

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1.3 Structure of this Report

This report will follow the below layout:

- **Section 1** is the introduction which discusses briefly the core areas of Biodiversity management and Enhancement associated with the Proposed Project
- **Section 2** discusses measures put in place to enhance existing hedgerows and create new hedgerows within the Proposed Wind Farm site and offset any loss of Hedgerow and Treeline associated with the Proposed Project
- **Section 3** discusses the measures put in place to create a new Riparian Woodland buffer within the Proposed Wind Farm site and offset any loss of (Mixed) Broadleaved Woodland (WD1) associated with the Proposed Project,
- **Section 4** discusses the Installation of Pine Marten and Red Squirrel nesting boxes.
- **Section 5** discusses the Installation of Bat boxes.
- **Section 6** provides a conclusion for all Biodiversity Management and Enhancement Measures presented within this report.

Map Legend

- EIAR Site Boundary
- Blue Line Boundary
- Red Line Boundary
- Linear vegetation loss
- Bat Felling Buffer

N

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Drawing Title

Woodland and linear vegetation loss associated with Proposed Wind Farm

Project Title

Enerco Briskalagh windfarm

Drawn By	Checked By
FK	CM
Project No.	Drawing No.
230502	Figure 1-1
Scale	Date
1:18,598	12.09.2024

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Map Legend

- EIAR Site Boundary
- Blue Line Boundary
- Red Line Boundary
- Hedgerow Enhancement
- Hedgerow Creation
- Proposed Riparian Woodland Buffer
- Turbine numbers

N

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Drawing Title

Proposed Riparian woodland planting and Hedgerow replanting areas

Project Title

Enerco Briskalagh windfarm

Drawn By	Checked By
FK	CM
Project No.	Drawing No.
230502	Figure 2-1
Scale	Date
1:18,598	12.09.2024

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2. LINEAR HABITAT LOSS AND ENHANCEMENT/CREATION

The vast majority of field boundaries within the Proposed Wind Farm site are delineated by mature (managed and unmanaged) hedgerow and treeline habitats. It is anticipated approximately 1388m of hedgerow habitat will be removed to accommodate the Proposed Project, including turbines and associated bat buffers, wind farm roads and other key infrastructure. The majority of the existing hedgerows in the southern section of the Proposed Wind Farm site are heavily managed and do not support high levels of biodiversity or provide adequate commuting and foraging corridors for local wildlife. The locations of hedgerow loss are shown in figure 1.1.

To increase the ecological condition of these habitats, approximately 3640m of heavily managed hedgerow will be enhanced through additional planting with native species. It is proposed to plant some native tree species within the hedgerow habitat to further increase the biodiversity value within the Site. New native hedgerow habitat will be created within the Proposed Wind Farm site , approx. 270m. The enhancement of existing hedgerows and hedgerow creation will improve the ecological value and provide benefits for local biodiversity. Existing hedgerow locations identified as suitable for enhancement planting and hedgerow creation are shown in Figure 1-2. Native species suitable for hedgerow 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*)
- Guelder rose (*Viburnum opulus*)
- Holly (*Ilex aquifolium*)
- Elder (*Sambucus nigra*)
- Spindle (*Euonymus europaeus*)
- Wild cherry (*Prunus avium*)
- Downey birch (*Betula pubescens*)
- Oak (*Quercus robur*)
- Goat Willow (*Salix caprea*)
  - Proportion of hedgerow mix: 25%
  - Age class to be planted: Whips predominantly

2.1 Maintenance of Newly Planted Hedgerow

In order to facilitate the successful establishment of the new hedgerow to be planted within the Proposed Wind Farm site, and to promote biodiversity value of these the following measures are proposed:

- New hedgerow shrub planting will be kept weed and litter free until the new plants are established, particularly from ruderal weeds. Healthy growth will be maintained by allowing the plant to occupy as much of the planting areas as possible to allow them to achieve as close their natural form as possible.
- During spring and autumn maintenance periods all trees and plants will be checked and adjusted/replaced as required, soil firmed, and any dead wood present removed back to healthy tissue and mulch added if required. Where tree guards are no longer required these will be removed to avoid damage to the tree.

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- During the first growing season, all standard trees/ semi-mature trees will be watered regularly during any prolonged dry periods during the growing season (i.e. in April, May, June, July and August). During the second growing season the trees will be kept well-watered as often as required, particularly during June, July and August.
- Hedgerows should be cut annually, with the cutting height raised 10-15cm each year, with cutting only taking place between November and February, thus allowing flowers and fruit to develop. If it is necessary to cut more frequently, alternate which side of the hedge is cut each year to allow parts of the hedge to grow and flower.
- Any tree, hedge or shrub that is removed, uprooted, destroyed or that becomes seriously damaged, defective diseased or dead shall be replaced in the same location with another plant of the same species and size as that originally planted. All such replacements shall be carried out within the first planting season following the loss.

2.2 Monitoring

Hedgerows and replanted trees will be inspected following the main growing season (i.e. in September) for the first three years of growth, where the requirement for replacement planting will be assessed. If any shrubs are dead or damaged these will be replaced using the same species within the next planting season. Recommendations for ongoing or remedial management required will be specified within an Environmental and Ecological Report.

2.3 Reporting

Monitoring results will be reported by a suitably experienced ecologist within an Environmental and Ecological Report with any criteria failures identified and corrective actions implemented. Monitoring results will be reported after each monitoring year as outlined in section 2.2. 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 at the temporal intervals outlined in Section 2.2 following commencement of the plan's implementation.

2.4 Discussion

The proposed enhancement of 3,840m of exiting hedgerow habitat and the planting of 270m of new habitat hedgerow habitat will improve the ecological value and provide benefits for local biodiversity. Improving hedgerow availability will increase the commuting and foraging habitat available for bats within the Project Site. Linear features allow bats to navigate across a landscape while providing protection from predators like Owls and Hawks. Predators rely on hunting bats where gaps or open space exist. Bolstering hedgerow and treelines reduce and remove gaps to provide more consistently safe commuting routes for bats. Bats have been shown to avoid crossing a linear feature gap with a distance of 3m. Improving the diversity of the hedgerow and treelines will allow a more diverse and abundant habitat for insect species. Insect species that breed and exist within the tree habitat are an important food source for bats and birds.

3. WOODLAND LOSS AND RIPARIAN WOODLAND BUFFER ZONE CREATION

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It is proposed to create a new native riparian woodland buffer zone adjacent the Tullaroan stream within the Proposed Wind Farm site. Approximately 1.7ha of riparian woodland planting is proposed to be planted on both banks of the Tullaroan stream.

Planting and management will be guided primarily by conservation, water quality protection and other ecological considerations. The areas will be allowed to develop as undisturbed native riparian buffer zones. Vegetation management and protection against grazing is essential as deer utilise the woodland habitats in the west of the Proposed Wind Farm site and cattle graze the grasslands adjacent the Tullaroan stream. The control and management of the proposed planted areas following planting is critical for riparian establishment and success. The focus will be on minimising disturbance i.e. trampling and grazing. Tree guards are appropriate and will provide protection against grazers and will be inspected regularly.

Species most tolerant to flooded areas include:

- Alder (*Alnus glutinosa*)
- Black poplar (*Populus nigra*),
- Downey birch (*Betula pubescens*),
- Willow spp. (*Salix spp.*),
- Aspen (*Populus tremuus*)
- Hazel (*Corylus avellana*).

All saplings will be planted by hand to reduce to potential for bare soil exposure and sediment runoff. Once these areas are established the riparian woodland buffer will benefit wildlife in the local area and may help reduce alluvial erosion. By protecting the young tree species grazers, the chances of establishing a mature riparian buffer zone will increase. Further, this riparian buffer zone will be managed such that it remains uncultivated and ungrazed and future cutting will be avoided.

3.1 Maintenance of Newly Planted Woodland Habitat

Maintenance of the proposed woodland planting will be followed out as per the *Native Woodland Establishment GPC9 & GPC10 Silvicultural Standards* (Department of Agriculture, Food and the Marine, 2015).

3.2 Monitoring

To confirm that habitat creation has been successful the above outlined woodland replanting scheme will be monitored by a qualified ecologist at the following intervals:

- 6 Months,
- 1 Year,
- 2 Years.
- 3 Years,

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At the end of the 3-year monitoring plan as outlined above, the Project Ecologist will assess the need for and frequency of further monitoring of the woodland replanting area in agreement with the wind farm operator. In order to carry out monitoring, a qualified ecologist will conduct inspections and relevés of the planting area at the above outlined temporal intervals following the main growing season (i.e. in September). These inspections and relevés will be recorded and entered into a monitoring report. The collected information will inform the success of the proposal allow for adaptive intervention if it is deemed necessary e.g. if any shrubs are dead or damaged these will be replaced using the same species within the next planting season. Monitoring will be undertaken in partnership between the developer, the Project Ecologist, and the Landowner. The proposed management actions will be conveyed to the developer and the relevant landowner, and management alterations implemented as required to achieve the targets of the management plan.

3.3 Reporting

Monitoring results will be reported by a suitably experienced ecologist within an Environmental and Ecological Report with any criteria failures identified and corrective actions implemented. Monitoring results will be reported after each monitoring year as outlined in section 3.2. 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 at the temporal intervals outlined in Section 3.3 following commencement of the plan's implementation.

3.4 Discussion

The planting riparian woodland habitat will provide potential foraging, commuting and resting habitat for a range of faunal species and will also offset the minor loss of woodland habitat associated with the Proposed Project. The trees which are planted in close proximity to the restored river channel will provide shading and help with thermo-regulation of fish species present within the watercourse and provide detritus in the form of fallen leaves for macroinvertebrates to utilise within the watercourse. Overall, the planting of ~1.7ha of riparian woodland represents a significant biodiversity nett gain.

4. PINE MARTEN AND RED SQUIRREL BOXES

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Signs of pine marten were recorded within the Proposed Wind farm site, as described in chapter 6. While no significant loss of pine martin habitat or significant effects on pine martin are expected as a result of the Proposed Project, pine martin were recorded utilising the Proposed Wind Farm site. Therefore, enhancement measures are proposed to create new suitable habitat for pine martin. In relation to pine marten, nesting boxes have proved to be a very successful conservation tool in Scotland, with many boxes being occupied continuously over a number of years and were used by breeding females to raise their young (Croose et al., 2016). A similar study carried out in Scotland in relation to red squirrel also showed that nest boxes can be a useful conservation tool to mitigate the impacts of forest operations (de Raad et al., 2021).

Nesting boxes will be erected within the Proposed Wind Farm site during construction. The number and location of these nesting boxes will be agreed upon in partnership between the developer, the Project Ecologist and the Landowner and will be informed by the following documents:

- Protocol and risk assessment for installation of artificial pine marten den boxes (Tosh and Twining, 2018),
- Constructing, erecting and monitoring Pine Marten Den Boxes (The Vincent Wildlife Trust).

4.1 Proposed Nest/Den Box Installation

Table 4-1 (found in Constructing, erecting and monitoring Pine Marten Den Boxes (The Vincent Wildlife Trust)) below states the recommended density of pine marten boxes relating to varying woodland types. These boxes should be spaced evenly throughout a woodland, with the aim of providing a minimum of four boxes within the home range of a female pine marten (which varies in relation to woodland type).

Table 4-1 Recommended Density of Pine Marten Boxes per woodland type (Source: The Vincent Wildlife Trust)

Woodland Type	Minimum density of marten boxes (no. per square kilometre)
Lowland, species-rich, broadleaved or mixed	4
Lowland, coniferous, commercial, mixed coniferous	2
Upland, commercial, coniferous	1

As outlined above Pine Marten boxes will be constructed in line with *Constructing, erecting and monitoring Pine Marten Den Boxes* (The Vincent Wildlife Trust).

Installation of the Pine Marten nest boxes will be carried out as follows:

Tree Selection

Selection of a suitable tree will require the installer to seek out a tree that they deem to be fit for the purpose. The following guidelines will aid the installer in selecting a tree that is suitable for installation:

- Ensure the nest box is installed on a tree a suitable distance from human roadways and paths, and away from areas targeted for woodland management or harvesting in the near future, to avoid disturbance of the box.

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- Locating the box near pre-existing animal trails may increase the likelihood and speed with which the box is discovered by pine martens.
- The boxes are likely to produce the greatest benefits if they are installed in large, undisturbed, prey-rich woodlands where natural den sites such as tree cavities are scarce or absent.
- The tree itself must be a living tree with a straight trunk and a minimum DBH (diameter at breast height) of 20cm. Additionally, the tree should not show any obvious signs of disease.
- Ensure there are branches at a height of 3 to 4m that will allow the box to be hung at a suitable height. Additionally, ensure that branches are present above this to facilitate an anchor point for the installer who will be working at height, as well as for the pulley system that will be used during the installation to be attached to.
- Typical trees within conifer plantations that pine marten boxes are usually hung on include the following species: Sitka spruce (*Picea sitchensis*), Scots pine (*Pinus sylvestris*), Norway spruce (*Picea abies*), lodgepole pine (*Pinus contorta*) or Larch (*Larix sp.*).
- Finally, when choosing a site for a box, bear in mind the future requirement to view the lid of the box through binoculars to check for signs of marten scats.

Erecting the box

The following text regarding the erecting of pine marten taken directly from the document titled 'Protocol and risk assessment for installation of artificial pine marten den boxes' (Tosh and Twining, 2018) (consult the aforementioned document for images that illustrate the steps mentioned below):

Once at a suitable location and a tree has been selected the following should be undertaken **(NOTE: PPE should be worn by person on ladder and ground during above procedure):**

1. Clear area around base of the tree to ensure a clear working space and remove trip hazards as much as possible. Use hand saw to remove any low branches that may impede say use of ladder.
2. Erect the ladder against trunk of tree.
3. Secure base of ladder to the tree trunk using 1 ratchet strap.
4. Climb ladder to proposed working height and attach sling around tree at an anchor point ABOVE working position and attach to climbing harness with carabiner. Do this BEFORE attempting step 5 and always ensure a 2nd person is holding the ladder during this process.
5. Attach top of ladder to tree trunk with 2nd ratchet strap.
6. Whilst on the ground, attach two additional batons to the rear of the box. These will act to provide more stability for the box against the tree.
7. Prepare two lengths of the blue nylon rope for attaching the den box to the tree and loop them through batons. Tie a bowline knot on one end of each rope. Do this on the ground and not at height for an easier installation.

Once the ladder is safely in position and you have an attachment point for the person working at height, the following should be undertaken to attach the box to the tree. NOTE: prior to commencing work at height, determine the direction of prevailing wind for the area and ensure the entrances to the box face the opposite direction.

1. Climb the ladder, with the pulley, and attach to the tree using a climbing sling in combination with a carabiner. The sling should be wrapped round the tree and the ends secured with a carabiner. The pulley should then be attached to the carabiner. Ensure that the sling to which the pulley is attached, is secured point is on the tree trunk ABOVE the height at which the den box will be positioned. This is important otherwise disconnecting the pulley and rope once box is in position will be difficult. NOTE it is advisable that the anchor point for the pulley is above a branch to ensure that if it slips it does not fall far.
2. Once the pulley is securely attached the rope should be connected to the pulley with a bowline at one end to which a carabiner will be attached. This will be lowered to the ground to pull up the den box.

3. On the ground, a single sling should have both ends looped through the two entrances of the den box (this will allow the box to be attached to the rope used to lift it into the tree using a carabiner).
4. The person on the ground should then attach the end of the rope with the carabiner (see step 2 above) to the sling inside the den box.
5. When the person on the ladder is safely in position, the person on the ground should raise the den box (by pulling on the rope attached to the pulley) to a suitable working height.
6. Once at a suitable working height the person on the ladder should secure the first piece of nylon rope around the trunk ensuring it is hooked above a branch. To secure the rope, tie a bowline in one end and loop the other end through it before tying another knot to secure. This can be repeated a number of times to ensure if one knot fails another will be in position to act as a fail-safe.
7. Repeat Step 6 for the 2nd blue nylon rope but note there is less of a need to ensure 2nd rope is secured above a branch as weight will be carried by first rope (ensuring it is attached above a branch).
8. Once secure, detach pulley system from tree and lower it and rope to ground and then secure lid to box. NOTE: Ensure sawdust or local bedding material e.g. moss is used to line the bottom of the nesting chamber.

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4.2 Maintenance of Proposed Nest Boxes

The box should require only basic maintenance, with the condition to be checked on an annual basis.

- The condition of the attaching line should be checked to ensure it is not damaged or that the tree is not growing into it. If either of these is the case the attaching line should be replaced/loosened to ensure it does not break or cause damage to the tree.
- The box will require repainting approximately every three years to enhance its lifespan. A low odour coating should be used. As there may not be a time of the year when pine martens can be guaranteed to not be in residence, September and October are likely the most suitable months to repaint.
- The condition of the lid should also be checked, as martens may mark the lid with urine and scats, resulting in a faster deterioration compared to the rest of the box and it may need to be replaced. When checking if a box is occupied, knock the side of the box before removing the lid and wait a few moments. This will give any occupants time to get out of the way.
- Finally, the general condition of the box itself should be checked. Although marine timber is used to construct the box, it will deteriorate over time, and it will need to be replaced eventually.

Prior to any maintenance works on the box, it should be checked for occupants. As disturbance can result in abandonment of denning sites, this should be minimised as much as possible.

Red squirrel boxes will be installed using the same methodology and the Pine Marten nesting boxes described above.

The maintenance of the pine marten boxes will be carried out by the wind farm operator.

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4.3 Monitoring

Resting sites of pine marten and red squirrel are protected by law in the Ireland under the Wildlife Act (1976 to 2023). Therefore, if a pine marten or red squirrel is using a den box, then it is illegal to check the den box without a license. A licensed Ecologist will carry out all monitoring of installed boxes.

Monitoring will take place yearly after installation of boxes for the first three years of the operational Proposed Wind Farm. The results of the first three years of monitoring will inform the need for and frequency of further monitoring and maintenance of the boxes, to be reviewed by the Project Ecologist and agreed with the wind farm operator.

As previously mentioned, disturbance can result in the abandonment of nesting sites. Therefore, monitoring should be carried out using non-invasive methods where possible.

- If boxes are used by pine martens, scats can accumulate on the roof. Therefore, if you can locate an elevated position nearby, use of box can be confirmed by using binoculars. This should obviate the need for a licence and, done quietly and infrequently (maximum twice per year), should avoid disturbance that might lead a pine marten to desert the box.
- Camera traps can be situated opposite den box entrances in adjacent trees or at ground level facing the base of a tree with den box, if viewing with binoculars is not possible.

Typical signs indicating that the box is in use include scratches on the tree bark and the box, bark on the ground at the base of the tree, scats on top of the box or at the base of the tree, and food items in the nesting chamber.

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5. BAT BOXES

To provide additional roosting habitat for local bat species, it is proposed to install two bat boxes with the Proposed Wind farm Site. Schwegler 1FF and one 2FN woodcrete bat boxes are recommended. 2FN bat boxes are equipped with a floor and can be used for the relocation of bats by a licenced ecologist if any are found during the demolition and felling processes. Bat boxes will have a southerly orientation and be positioned at least 2m from the ground, away from artificial lighting. Bat boxes should be installed in dark areas within the Site along a suitable linear feature. A licenced ecologist will confirm a suitable location for the bat boxes. Bat boxes will be placed adjacent to vegetation features such as treelines and hedgerows to ensure they are close to existing flight paths and can avoid wide open spaces (Collins, 2016). Existing buildings, trees and walls to be retained within the Site and can be used for the installation of bat boxes.

- A count of all potential roosting features lost will be required to ensure all features are accounted for by the alternative roosting features.
- Veteranisation (i.e. artificially ageing trees by producing non-lethal damage) will be undertaken by professionally trained arborists.
- Bat-boxes produced with woodcrete materials (i.e. Schwegler) will be utilised where veteranisation of existing broadleaves is not possible.
- Bat boxes will be installed on the retained treelines to provide new roosting opportunities within the site. A minimum of five bat boxes are recommended for installation prior to any works commencing. Two Schwegler 1FF and three 2FN woodcrete bat boxes are recommended. 2FN bat boxes are equipped with a floor and can be used for the relocation of bats by a licenced ecologist if any are found during the felling processes. Bat boxes will have a southerly orientation and be positioned at least 3m from the ground, away from existing or proposed artificial lighting and other potential disturbance, as per best practice guidelines.
- Monitoring and maintenance of the Bat boxes will take place yearly for the first three years of the operational Wind Farm. The results of the first three years of monitoring will inform the need for and frequency of further monitoring and maintenance of the Bat Boxes, to be reviewed by the Project Ecologist and agreed with the wind farm operator.

5.1 Maintenance of Proposed Bat Boxes

2FN bat boxes contain a base, as a result, the box may need to be checked outside the Maternity Season to remove excess bat droppings and remove bird nests outside the bird nesting season.

5.2 Monitoring

A Licenced Ecologist will carry out a yearly Bat Box Monitoring protocol for the first three years of the operational life of the Proposed Wind Farm. The ecologist will confirm and flag Bat boxes in use by bats, evidence of bats, droppings, urine splashing, bat fur oil stains and/or dead bats. Monitoring will be carried out a suitable time of year to ensure no disturbance to any roosting bats, particularly in the case of a Maternity Roost. The best time of year for a Bat Box Monitoring protocol to be carried out is September/ October.

Evidence or presence of nesting birds will be flagged and removed outside the bird nesting season. 2FN Bat boxes must be checked to remove excess bat droppings and flag any bird nests being constructed within a bat box. If a bird nest is found, a secondary bat roosting source must be erected to replace the bat roosting source lost.

The results of the first three years of monitoring will inform the need for and frequency of further monitoring and maintenance of the Bat Boxes, to be reviewed by the Project Ecologist and agreed with the wind farm operator.

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5.3 Reporting

Monitoring results will be reported by a suitably experienced ecologist within an Environmental and Ecological Report with any criteria failures identified and corrective actions implemented Monitoring results will be reported after each monitoring instance. 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.

CONCLUSION

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This BMEP sets out the measures to be implemented to ensure that the Proposed Project will result in the enhancement and improvement of ecological connectivity within the Proposed Wind farm site. The enhancement of 3640m existing hedgerows, creation of 270m of new native hedgerow and ~1.0ha of a new riparian buffer zone will be of benefit to a number of species including bats, small mammals and pollinator species. Measures set out in the plan will also improve the nesting habitat for pine marten and red squirrel within the Proposed Wind farm Site.. This plan has set out measures to be implemented during establishment and management phases to ensure that the measures are successful, as well as regularly monitoring by an ecologist to ensure the success of the measures outlined in the BMEP.

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