

Oweninny Wind Farm Phase 3

Environmental Impact Assessment Report

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**Appendix 7.4 Biodiversity Enhancement Plan**



# Bord na Móna

Oweninny Wind Farm Phase 3  
Biodiversity Enhancement Plan



**PROJECT NAME: Oweninny Wind Farm Phase 3**

**REPORT NAME: Biodiversity Enhancement Plan**

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## 1.0 INTRODUCTION

A Biodiversity Management Plan is proposed in order to provide a number of opportunities for providing biodiversity enhancement within the development design and measures to enhance same. This Biodiversity Management Plan has been prepared as an Appendix to the Environmental Impact Assessment Report for the proposed Oweninny Wind Farm Phase 3 (herein referred to as the 'Proposed Development'). The enhancement measures have been designed to offset the habitat loss of bog habitat to the proposed development as well as incorporating additional biodiversity benefit measures. The measures are focused on biodiversity enhancement that confined entirely within the proposed planning application site boundary.

All habitat enhancement measures and ongoing management practices are proposed in line with guidance produced by Draft Revised Wind Energy Development Guidelines WEDG (2019)<sup>1</sup>, the National Biodiversity Management Plan (NBMP), 2017-2021<sup>2</sup>, the Renewable Energy Strategy for Co. Mayo 2011-2020<sup>3</sup> and the Mayo County Development Plan (CDP) 2022-2028<sup>4</sup>.

The proposed development, which comprises of 18 No. wind turbines, a 110 kV substation, a grid connection, and all associated infrastructure is located at Oweninny Bog in North Co. Mayo. The proposed development is situated approximately 12km west of Crossmolina and 15km east of Bangor Erris. The closest settlement to the site is Bellacorick village which is located approximately 2km from the southwestern extents of the proposed development. To the east of the site a local road (L5292) runs northwards from the N59 to the townlands of Shanvolahan and Formoyle.

Within the overall study area of the proposed development an approximate 2,282ha of habitat was recorded, the proposed development will result in a loss/impact of approximately 93.3ha of this habitat under proposed permanent and temporary infrastructure. This equates to approximately 3.9% of the overall habitat within the site. The habitats that are subject to impact include, improved agricultural grassland, dry meadows and grassy verges, dry humid acid grassland, wet grassland, dry siliceous heath (non-annex), wet heath (non-annex), lowland blanket bog (non-annex), cutover bog (bare peat and recolonising), scrub and Immature woodland (see Table 2-1).

The biodiversity enhancement and management measures that are included in this document are designed to offset the impact on habitats within the proposed development footprint as well as aiming to increase the overall biodiversity value of the site. This has been achieved through the following measures:

- Rehabilitation measures of remnant blanket bog occurring within the site boundary by improving the hydrological regime via drain blocking.

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<sup>1</sup> Department of Housing, Local Government and Heritage Draft Revised Wind Energy Development Guidelines December 2019 [6e68ea81b8084ac5b7f9343d04f0b0ef.pdf](https://www.gov.ie/6e68ea81b8084ac5b7f9343d04f0b0ef.pdf) ([www.gov.ie](http://www.gov.ie))

<sup>2</sup> National Biodiversity Management Plan 2017 – 2021. Available at: <https://www.npws.ie/sites/default/files/publications/pdf/National%20Biodiversity%20Action%20Plan%20English.pdf>

<sup>3</sup> The Renewable Energy Strategy for Co. Mayo 2011-2020 [pdf](http://pdf.mayo.ie) ([mayo.ie](http://mayo.ie))

<sup>4</sup> Mayo County Council Development Plan [Vol-1-Mayo-CDP-22-28-Final.pdf](http://Vol-1-Mayo-CDP-22-28-Final.pdf)



- Targeted fertiliser (rock phosphate) treatment and improving hydrological conditions (through drain blocking) in areas of bare peat with the aim to promote the expedition of revegetation on the former cutaway blanket bog.
- Removal of self-seeding lodge pole pine trees on recovering cutover bog habitat. The removal of these trees in specific areas will allow the cutover bog habitats to maintain the appropriate hydrological conditions and plant species needed to contribute more to peat forming activities and provide more suitable breeding habitat for ground nesting birds, of which the important breeding locations have been identified within chapter 8 (Ornithology) of this EIAR.
- The reinstatement of the borrow pits located within the site. Retaining these pits as mosaic of, revegetated cutover peat, exposed gravel areas and some permanent standing water, which would provide habitat to breeding bird species such as ringed plover.
- The reinstatement of Peat Deposition Area (PDA) within the site. Where excess peat is to be excavated it will be brought to the nearest PDA and profiled to form a thin layer of peat. To increase revegetation of these areas, targeted fertilisation (rock phosphate) and topography profiling to create small areas of standing water will be implemented to create the appropriate conditions for peat formation and to provide breeding opportunities for ground nesting birds.
- The control and eradication of the invasive plant species *Rhododendron* within the site will avoid any spread of this species.

## 1.1 Review of Desk and Field Studies

A desktop review of existing data on the proposed development site was undertaken. This included a review of the Biodiversity and Ornithology Chapters (chapters 7 and 8) of the Environmental Impact Assessment Report (EIAR) and the Appropriate Assessment (AA) Reports. The proposed development site has been subject to a fully detailed multidisciplinary flora and fauna survey and assessment. This is fully described in the biodiversity and ornithology chapters of the EIAR. The habitat valuation is also provided as part of the chapter in the EIAR.

A map showing the habitats present within the proposed development site is shown in Figure 1-1.

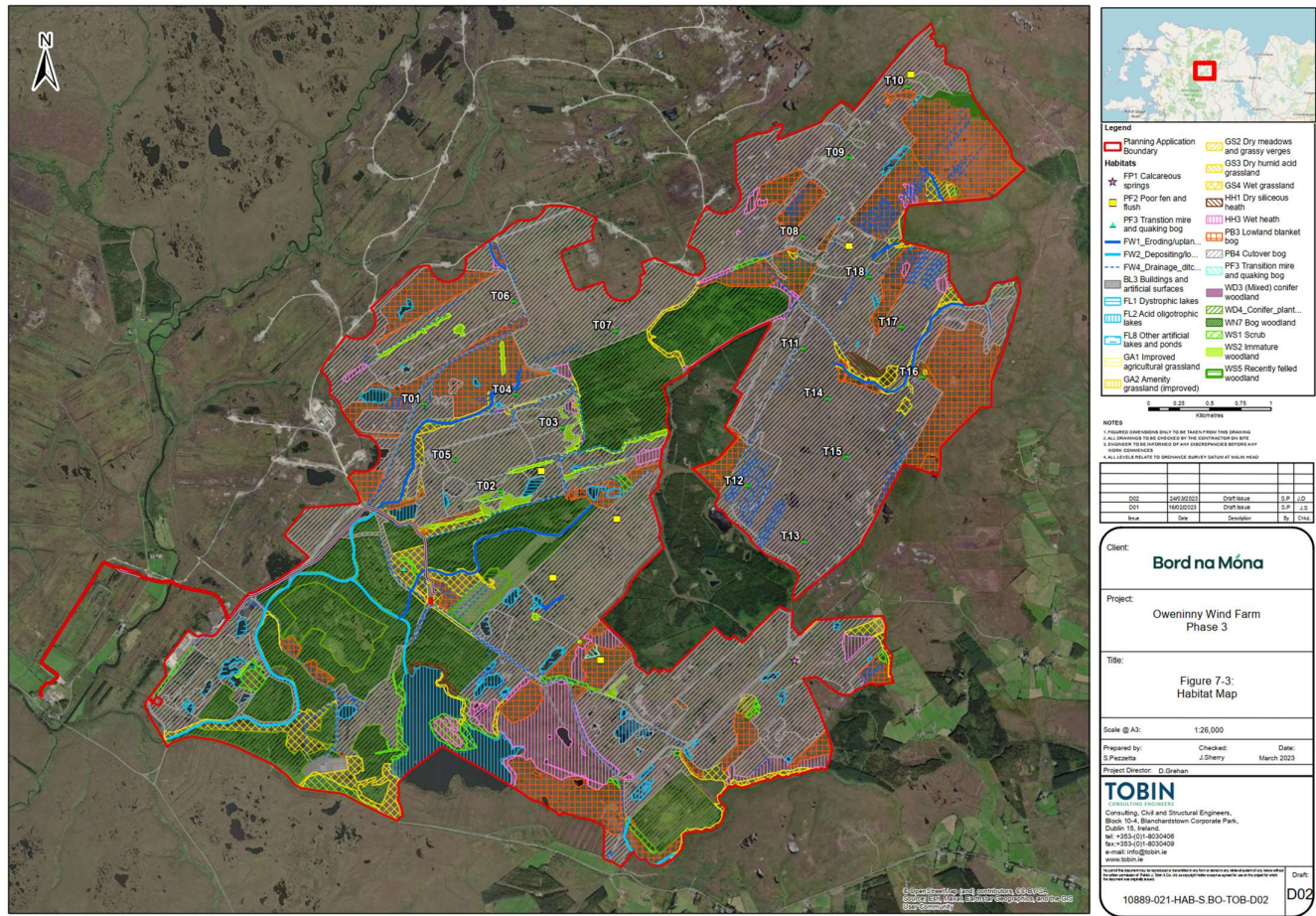
Past peat harvesting at the Oweninny bog complex was operated under an Integrated Pollution Control License (IPC Licence Number P0505-01) issued by the Environmental Protection Agency (EPA). In accordance with the licence for the site a bog rehabilitation programme has been developed and implemented (between 2001 and 2012) to enhance recovery of parts of the site<sup>5</sup>. As restoration of the former Atlantic blanket bog that existed at the site was not considered possible, the priority of the rehabilitation work was to stabilise the peat and encourage peat-forming vegetation on site. The rehabilitation work was undertaken largely by blocking drains and sculpting the peat surface to re-wet the peatland area. The greater part of the work was completed between 2003 and 2007.

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<sup>5</sup> Bord na Móna (2003). Appendix 1: Condition 10, Cutaway Bog Rehabilitation. Available online at: [https://epawebapp.epa.ie/licences/lic\\_eDMS/090151b2804d366a.pdf](https://epawebapp.epa.ie/licences/lic_eDMS/090151b2804d366a.pdf) [Accessed March 2023].



Figure 1-1: Habitats Present with the Proposed Development Site





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## 2.0 BIODIVERSITY ENHANCEMENT MEASURES

The following sections provide a description of the main habitat management and enhancement measures incorporated into the proposed development for biodiversity. The projected measure of habitat loss within the proposed development boundary is based on the areas which overlap with the proposed infrastructure and the operations involved in installing, maintaining and decommissioning that infrastructure (Table 2-1). The measures aim to offset the impact on habitats of the development footprint as well as providing measures to achieve additional biodiversity benefit for the project.

Although a Rehabilitation Plan was prepared for the site as part of the IPC licence (Bord na Móna, 2003)<sup>5</sup>, the below measures are not proposed as part of that plan and as such provide for habitat enhancement above and beyond those already implemented as part of Bord na Móna's obligations under the IPC licence.

*Table 2-1 Projected Habitat loss at Oweninny Wind Farm Phase 3*

Habitats	Proposed Infrastructure components (ha)								Total Area (ha)
	Amenity Walkway	Borrow Pit Areas	Cable Route	Construction Compounds	Peat Deposition Areas	Proposed Roads	Substation	Turbine Hardstands	
BL3 - Buildings and artificial surfaces	0.671	0.623	0.203	0.836	-	3.933	0.067	0.017	<b>6.349</b>
FL8 - Other artificial lakes and ponds	-	-	-	-	-	0.040	-	-	<b>0.040</b>
GA1 - Improved agricultural grassland	-	-	0.031	-	-	-	-	-	<b>0.031</b>
GS2 - Dry meadows and grassy verges	-	0.021	-	-	-	0.048	-	-	<b>0.069</b>
GS3 - Dry humid acid grassland	-	-	-	-	-	0.037	-	-	<b>0.037</b>
GS4 - Wet grassland	0.122	0.005	0.081	0.109	0.008	0.587	0.926	-	<b>1.837</b>
HH1 - Dry siliceous heath (non-Annex)	-	2.492	-	0.005	0.013	0.018	-	-	<b>2.529</b>
HH3 - Wet heath (non-Annex)	0.000	-	-	0.033	1.796	0.180	-	-	<b>2.010</b>
PB3 - Lowland blanket bog (non-Annex)	0.002	0.936	0.037	-	0.079	0.832	0.636	0.210	<b>2.733</b>
PB4 - Cutover bog	0.590	39.696	0.665	0.463	17.406	7.596	-	9.034	<b>75.450</b>
WS1 - Scrub	0.004	-	-	0.141	-	0.018	-	-	<b>0.162</b>
WS2 - Immature woodland	-	-	-	-	1.599	0.051	-	0.423	<b>2.073</b>
<b>Total Area (ha)</b>	<b>1.389</b>	<b>43.774</b>	<b>1.017</b>	<b>1.586</b>	<b>20.902</b>	<b>13.340</b>	<b>1.629</b>	<b>9.683</b>	<b>93.320</b>

## 2.1 Remnant Blanket Bog Restoration and Enhancement

Lowland blanket bog was recorded within the proposed development site totalling an approximate 387.2ha in size, the majority were assessed as being as being or poor to moderate quality as they are generally small in size, had lost their hydrological integrity due to past drainage works, were completely surrounded by cutover bog with no connection to other areas of blanket bog or had encroachment from self-seeding lodge pole pine (*Pinus contorta*). Of the lowland blanket bog recorded onsite, an approximate 2.7ha will be lost as a result of the proposed infrastructure. It is proposed to restore this amount of lowland blanket bog and additional suitable lowland blanket bog, to restore and enhance this habitat within the proposed development site.

Suitable areas for blanket bog restoration would comprise historically drained peatland or actively eroding deep peat with only limited vegetation cover. The extent of these areas would be subject to refinement prior to the completion of more targeted surveys, but restoration would aim to restore peatland/blanket bog habitat within areas where no apparent rehabilitation has occurred or where there was limited success from previous attempts, such as the areas to the north and north-eastern portions of the site (see Figure 2-2). These locations were identified as degraded lowland blanket bog and are approximately 71ha in size. The improvement of the hydrological regime, in the form of drain blocking, would provide the necessary conditions to allow peat forming conditions to return. The enhancement of blanket bog habitat will also benefit other peatland species recorded within the proposed development site, such as red grouse (*Lagopus lagopus hibernicus*).

Drain blocking will involve reducing the run-off rates and raising the water table close to the surface of the bog. Methods such as peat dams or plastic sheet piling, which have been used previously within the Oweninny bog rehabilitation plan or those as described in Mackin *et al.*, (2017)<sup>6</sup>, will be incorporated.

Prior to drain blocking works taking place, the proposed enhancement area will be surveyed by a suitably qualified ecologist and hydrologist to identify drains to be blocked.

## 2.2 Cutover Bog Revegetation

The proposed development site is dominated by cutover bog totalling an approximate 1269ha in size as a result of industrial-scale peat extraction since the 1950's. As discussed in chapter 7 of this EIAR, this habitat varied in quality, much of which is completely bare and devoid of vegetation or it has developed a low cover of vegetation, encouraged by the Bord na Móna bog rehabilitation programme. While, in other areas (where peat extraction ceased earlier) vegetation regeneration has developed enough to cover the peat, leaving very few bare areas. These have also remained wet as a result of drain blocking and are typically found near remnant blanket bog areas.

An estimated 75.5ha of cutover bog will be lost as a result of the proposed development. The majority of this lost habitat was considered poor quality due to having large areas of bare peat, several historic drain systems and poor species diversity.

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<sup>6</sup> Mackin, F., Barr, A., Rath, P., Eakin, M., Ryan, J., Jeffrey, R. & Fernandez Valverde, F. (2017) Best practice in raised bog restoration in Ireland. *Irish Wildlife Manuals*, No. 99. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

Measures taken with this habitat can do little to restore it to true lowland blanket bog habitats, however some measures proposed can lead to the recolonization of vegetation with the aim to restore some peat forming habitats, where suitable conditions may occur.

Suitable areas for cutover bog restoration would comprise of drained areas with only limited vegetation cover. The extent of these areas would be subject to refinement prior to the completion of more targeted surveys, but restoration would aim to enhance cutover bog habitat within areas where no apparent or limited rehabilitation has occurred such as those to the east and north-eastern portions of the site (see [Figure 2-2](#)). These locations were identified as bare cutover bog, with limited vegetation cover and some free-flowing drains that are approximately 307ha in size. The improvement of the hydrological regime, in the form of targeted drain blocking and/or berm creation and targeted application of fertiliser (rock phosphate), would aim to promote the expedition of revegetation on the former cutaway blanket bog.

The extent of these areas to be fertilised would be subject to refinement following the completion of construction activities and following targeted surveys by suitably qualified ecologists and hydrologists. Fertiliser will only be spread under certain conditions and best practice measures will be implemented to protect surface and ground water bodies.

## 2.3 Removal of Self-seeding Lodge Pole Pine

Lodgepole Pine has colonised the site from conifer plantations within the proposed development boundary. Non-native pine colonisation can have a detrimental impact on peatlands and peat forming habitats. One study on Boreal bogs suggests that pine growth impacted on *Sphagnum* development (Ohlson *et al.*, 2001)<sup>7</sup>. Similarly, the encroachment of trees within an open habitat can impact on ground nesting species such as ringed plover (*Charadrius hiaticula*) and snipe (*Gallinago gallinago*), via the removal of suitable nesting habitat and the provision of nesting or perching opportunities to predator species such as hooded crow (*Corvus cornix*).

Immature conifer woodland was recorded within the centre and southern portions of the site near the edges of mature conifer woodlands and confined to areas of cutover bog. These immature woodlands were almost exclusively made of self-seeded lodgepole pine, reaching 1 to 5 metres in height. It is proposed to target the immature woodlands/tree which are encroaching into areas of known breeding wader birds, these areas have been identified in [Figure 2-2](#). Their removal will maintain the open peatland habitat desired by ground nesting wader species such as ringed plover and snipe. The removal of these immature trees would also allow for the continued revegetation/re-wetting of the cutover bog habitats in this area, which has already occurred under the IPC license. It is proposed to cut and remove these self-seeded lodge pole pines and enact a five year monitoring regime, to remove any trees which may have been missed or become established.

## 2.4 Borrow Pit Reinstatement

Two borrow pits will be used as part of the proposed development. Following completion of the construction activities, these pits will be reinstated and partially back filled. The largest of the borrow pits in the north of the site will remove approximately 41ha of cutover bog, dominated by soft rush (*Juncus effusus*). The smaller borrow pit in the north-east of the site will remove an approximate 2.6ha of non-annex dry heath dominated by ling heather (*Calluna vulgaris*). The

<sup>7</sup> Ohlson, M., Økland, R. H., Nordbakken, J.-F. and Dahlberg, B. (2001). Fatal interactions between Scots pine and Sphagnum mosses in bog ecosystems. – *Oikos* 94: 425–432

partial back fill of this area with a thin layer of peat may take a number of years to revegetate or the hydrological conditions required to contribute to peat formation.

It is proposed to provide exposed gravel pit area with some permanent areas of standing water along with the backfill of peat. Such habitats will provide breeding opportunities for ground nesting birds, such as ringed plover, which can nest in a variety of habitats including man made one such as, relatively undisturbed industrial land, shorelines of reservoirs and gravel pits (Brown & Grice 2005)<sup>8</sup> and limited research has shown the species to nest within or near operating wind farms (Moores, 2018<sup>9</sup>; Robertson, 2021<sup>10</sup>). The species were regularly recorded within the proposed development site, confined largely to the large expanses of cutover bog or near glacial gravel deposits where breeding was recorded. More details on these recorded and locations can be seen in Chapter 8 -Ornithology.

The reinstated borrow pits with gravel pits and standing water will be kept scrub and tree free to keep the area open and suitable for ground nesting species like ringed plover and to remove potential perches and nest sites for corvid species (e.g. hooded crow).

## 2.5 Peat Deposition Area Reinstatement

Five PDAs will be used as part of the proposed development. Following completion of the construction activities, these PDAs will contain excess peat material from excavations for other infrastructure within the proposed development. This excess peat will be levelled and spread to a thin layer. It is proposed to profile the top layer of peat to provide depressions at intervals to allow for the area of standing water to form, additional to this target application of fertiliser (rock phosphate) will be implemented to enhance revegetation of the bare peat.

Similar to the revegetation of cutover bog habitat, the extent of the areas to be fertilised and the location of areas of standing water would be subject to refinement following construction activities. Fertiliser will only be spread under certain conditions and measure will be implemented to protect surface and ground water bodies.

## 2.6 Management of Invasive species

The Invasive Non-Native Species (INNS) *Rhododendron ponticum* was identified within the proposed development site. *Rhododendron* is listed in Part 1 of the Third Schedule of S.I No. 477 of 2011, European Communities (Birds and Natural Habitats) Regulations 2011 and the IAS Regulations. Its spread and establishment have the potential to form dense, long-lived thickets which smother the ground flora and suppress the regeneration of native shrubs and mosses. This allows the species to out-compete native plants for space and resources, especially for sunlight. Individual shrubs reach several metres in height. Well established thickets eventually form a toxic layer of leaf litter which produces a dark sterile environment and give little in terms of support for wildlife. The establishment of *rhododendron* on peatlands can inhibit peat formation.

<sup>8</sup> Brown, A. & Grice, P. (2005). Birds in England. T & A.D Poyser.

<sup>9</sup> Moores, R. (2018). Ringed Plovers (*Charadrius hiaticula*) nesting in deforested areas adjacent to and within an operational windfarm in Caithness, northeast Scotland. Biome Ecology. Available online at: <https://biomeecology.com/nature/birds/2018/12/ringed-plovers-charadrius-hiaticula-nesting-in-deforested-areas-adjacent-to-and-within-an-operational-windfarm-in-caithness-northeast-scotland/> [accessed March 2023]

<sup>10</sup> Robertson, L. (2021). Endangered birds found nesting at base of 400ft wind turbine. The Press and Journal. 28<sup>th</sup> July. Available online at: <https://www.pressandjournal.co.uk/fp/news/highlands-islands/3346609/endangered-birds-found-nesting-at-foot-of-126-meter-wind-turbine/> [accessed march 2023].

Its removal is required prior to construction of the proposed development as there is potential to cause disturbance and subsequently cause the further spread of the species along the construction corridor. It is proposed that the appointed construction contractor, will identify all INNS within the proposed development site in the form of an updated invasive species walkover survey and create a detailed and concise Invasive Species Management Plan (ISMP) prior to construction using methods such as those described below. These management options were determined with reference to Higgins (2008)<sup>11</sup>, Invasive Species Ireland (2008)<sup>12</sup>, NRA (2010)<sup>13</sup>. All invasive species works will be managed and supervised as needed by an Ecological Clerk of Works.

- Digging the stumps out. The effectiveness of this technique is increased by removing all viable roots. This can be done manually or with a tractor and plough. To avoid regrowth, stumps should be turned upside down and soil should be brushed off roots.
- Direct stump treatment by painting or spot spraying freshly cut low stumps with a herbicide immediately after been cut. Glyphosate (20% solution), triclopyr (8% solution) or ammonium sulphate (40% solution) are known to be effective during suitable weather conditions i.e. dry weather. The herbicide concentrations used, and the timings of applications vary according to which chemical is used. Use of a vegetable dye is recommended to mark treated stumps and all stumps should be targeted. A handheld applicator will help avoid spray drift onto surrounding non-target species. Always read the label and follow the manufacturers guidelines when using herbicides.
- A variation on the stump treatment method is stem injection, using a 'drill and drop' methodology, whereby, if the main stem is cut and is large enough for a hole to be drilled into it, the hole can be used to facilitate the targeted application of glyphosate (25% solution). The main drawback is that the dead Rhododendron may persist in situ for 10-15 years.
- Stump regrowth and seedlings can be effectively killed by spraying regrowth with a suitable herbicide, usually glyphosate. Best practice spraying protocols should be carefully followed. General broadcast spraying is not as effective as stump spot treatment and has the potential to impact on surrounding non-target species. Rhododendron leaves are thick and waxy. For herbicide treatment to be effective each individual leaf needs be thoroughly wetted with herbicide to kill the plant.

<sup>11</sup> Higgins, G.T. (2008) Rhododendron ponticum: A guide to management on nature conservation sites. Irish Wildlife Manuals, No. 33. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland

<sup>12</sup> Invasive Species Ireland (2008) Best Practice Management Guidelines Rhododendron *Rhododendron ponticum* and Cherry Laurel *Prunus laurocerasus*. Available online at: <https://invasivespeciesireland.com/wp-content/uploads/2012/01/Rhododendron-BPM.pdf> [accessed March 2023].

<sup>13</sup> NRA (2010) Guidelines for the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads. National Roads Authority, Dublin;

## 2.7 Natterer Bat Alternative Maternity Roost

A number of mitigation measures have been proposed to avoid or lessen the degree of impacts on local bat populations within the proposed development during the construction. The full details of these mitigation measures can be seen within Chapter 7 (Biodiversity) of the EIAR.

There is potential that part of the development (excavation of borrow pit A) will result in disturbance of an important nursery roost for Natterer's bats (*Myotis nattereri*) located in a disused toilet block. An exclusion zone of 50m will be required around the natter's roost structure to ensure that construction and operation works do not impact on the colony of bats roosting in it. An alternative roost will also be constructed prior to the any works near the current roost (see ). Annual monitoring of the structure should be undertaken until the alternative bat house has sufficiently replaced this structure as a roost.

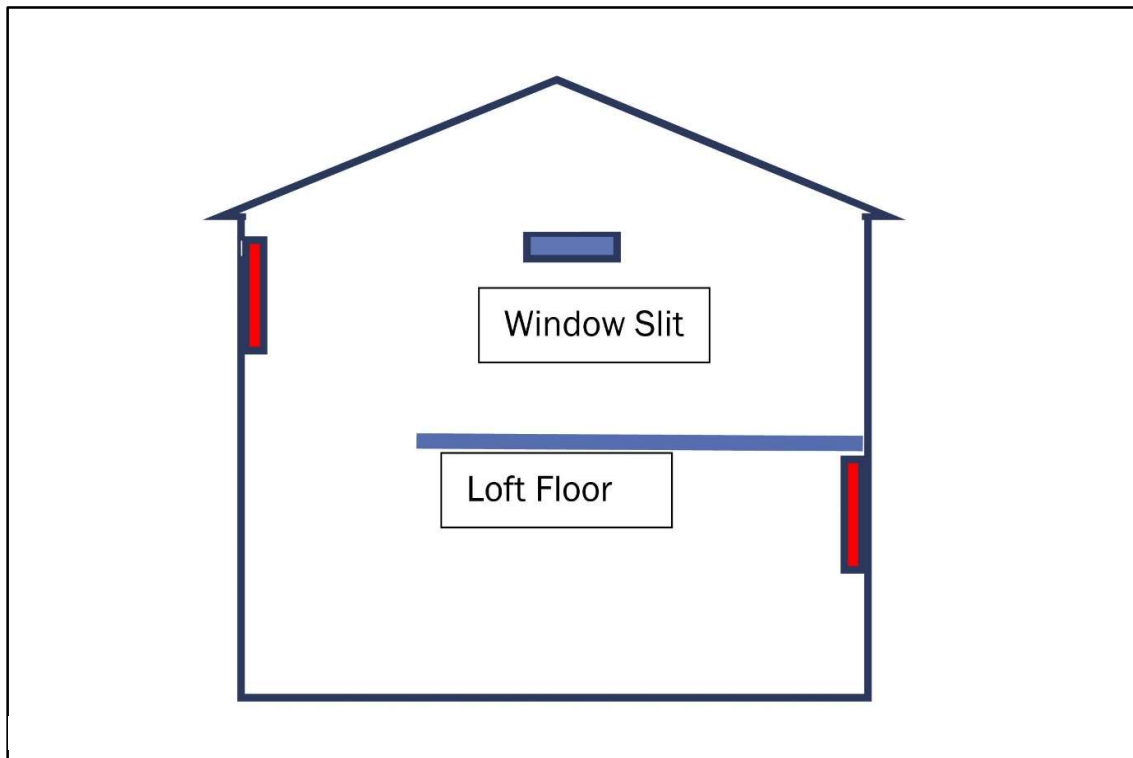
This bat house is required to have the following features:

- 2m x 2m (internal floor space) 1½ storey (internal height of 5m from floor level to highest point of roof space) building constructed from concrete block clad with natural stone (insulation between the two walls).
- A-roof, constructed of natural slate and 1F bitumous felt (no modern breathable felt is to be used in the bat house) on timber joists (9 x 2 inch joists). A semi-loft space is required.
- Single entrance point is required to be inserted into the wall facing the woodland edge (gable wall, at 4m height). This will be an open window of 50cm wide by 20cm high (window slit). This will require "Pine Marten" proofing externally (e.g. smooth lead sheeting fixed around the base (window sill) and sides of the window slit to prevent Pine Marten climbing into the space).
- The ground floor entrance will be a solid door on opposite gable wall to bat entrance point (locked).

Internally, the following is recommended:

- The floor of the building is to be a layer of crushed stone (2/3 inch down) (minimum use of concrete is recommended in order to reduce the negative impact of this material on the thermal conditions of the building) with an upper layer of 804 Clause (crushed) stone.
- An open loft space is to be constructed with a floor for ¾ of the potential floor space. A floor is to be constructed dividing the building into a ground floor and loft floor. Timber joists (9x2 inch timber) will be sheathed with marine plywood (leaving the timber joists exposed at the ground floor level (i.e. under the plywood sheets) – this will provide additional roosting space for bats). A safety handrail will be required along the exposed/open end of the loft floor.
- Ladder / stairwell (with safety rail) to be constructed to allow human access to loft to undertake monitoring of this section of the bat house.
- A partition box (one side of which is open to allow bats to fly into the loft space) internally around the window slit is required to be constructed (marine ply) to reduce light penetrating the loft space.

*Figure 2-1: Basic layout of the proposed Bat House (bats will be free to fly between the two floors).*



#### Additional roosting

- External walls

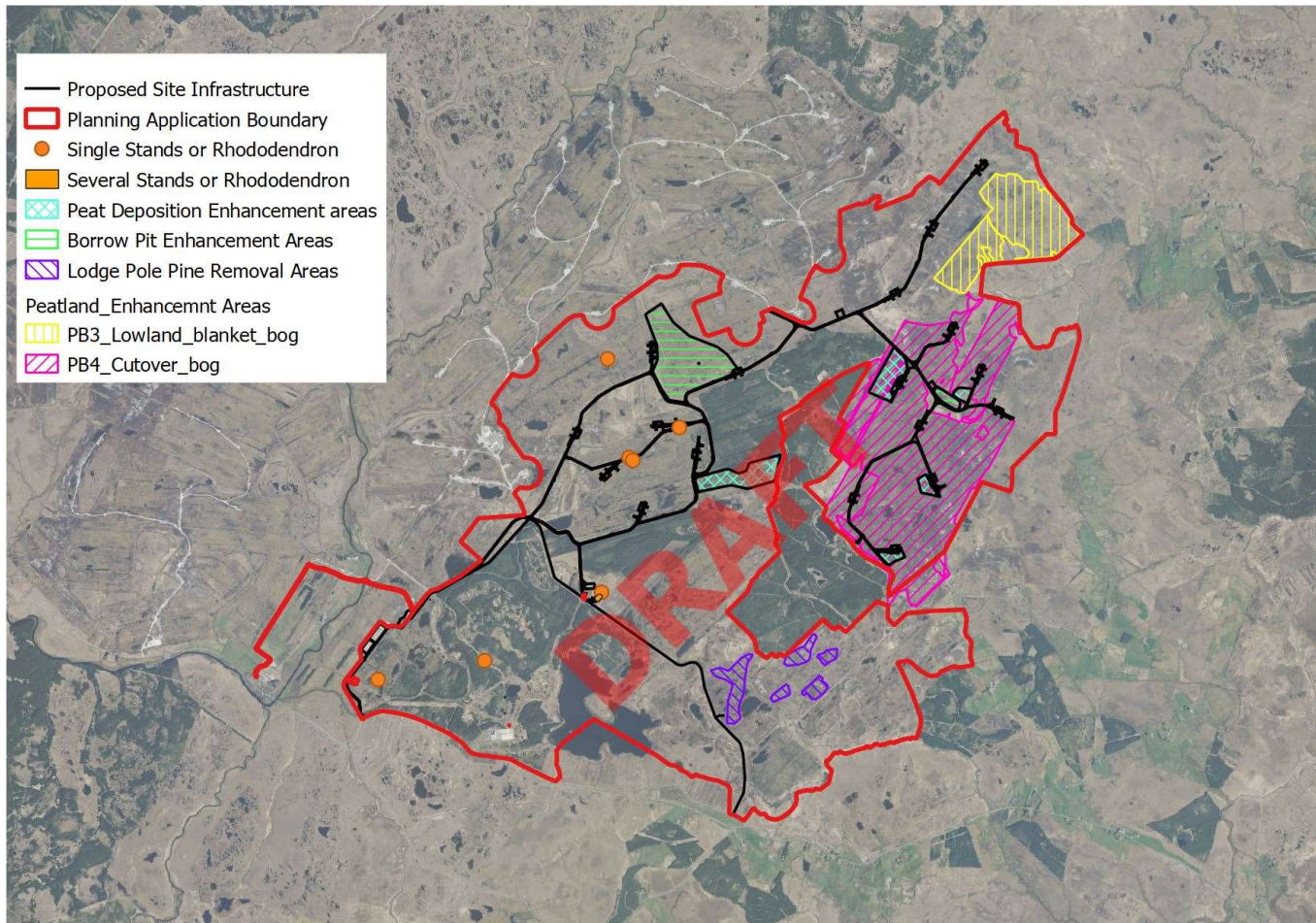
Insert four Bat Tubes along the external walls to provide roosting sites for crevice dwelling bats. These should be inserted at a minimum of 3m height.

- Internal walls

Hang four units of Integrated Woodstone Bat Box on the internal walls, 2m minimum off the ground.



Figure 2-2 Biodiversity Enhancement Map Layout



### 3.0 CONCLUSION

The proposed development will result in the permanent and temporary loss of habitat, associated with the construction of the proposed infrastructure. The full extent and the habitats lost are discussed in more detail in Chapter 6 or the EIAR.

This Biodiversity Enhancement Plan sets out measures for the enhancement and restoration of peatlands within the planning application boundary. This will be achieved through the restoration and revegetation of blanket and cutover bog and involve the felling and removal of self-seeded conifers. The plan also includes for the removal and treatment of rhododendron in several locations across the proposed development site and reinstated temporary construction infrastructure (borrow pits and PDAs) to provide additional habitats for ground nesting bird species.

Following the implementation of the measures outlined in this report, there will be an enhancement of approximately 421ha of peatland habitat and the provision of breeding and foraging habitat for species associated with peatlands, such as red grouse and breeding waders.