Appendix 8.3
Outline Biodiversity Enhancement Management Plan
Monan Repower

Monan Wind Farm
Ceann An Ora,
Ardhasaig,
Isle Of Harris,
HS3 3AJ

February 2024

IMTeco Ltd

IMTeco Ltd

Notes:

Site: Monan Wind Farm, Ceann An Ora, Ardhasaig, Isle Of Harris, HS3 3AJ.
Central Location: NB 14155 04937
Client: Constantine Wind Energy Ltd
Date: 19/03/24
Status:

Version	Date	Author	Checked	Approved
Draft	02/02/2024	I.Tierney	Y	
Draft	28/02/2024	I Tierney		
Final	19/03/2024	I Tierney		

CONTENTS

1 INTRODUCTION

1.1 Purpose of this Document

This document presents the biodiversity enhancement measures at the Monan Repower Wind Farm proposal (Proposed Development) at Monan Wind Farm, Ceann An Ora, Ardhasaig, Isle Of Harris, HS3 3AJ.

The biodiversity enhancement measures consist of both on-site measures, which are within the Application Boundary (Figure 1), and off-site measures which are just outside the Application Boundary, but within the management and landowners' holdings (Figure 2).

The provision of standard compensatory measures and enhancement of biodiversity for the proposed scheme will be via a final Biodiversity Enhancement Management Plan (BEMP), which will provide the framework for achieving biodiversity enhancement and ensuring its success. This is an Outline Biodiversity Enhancement Management Plan (OBEMP) which will be refined and developed post-consent. The final BEMP will confirm all biodiversity enhancement measures and management prescriptions. The final BEMP will be agreed by the Local Council (Comhairle nan Eilean Siar) in consultation with NatureScot, forming a stakeholder group with the development owner and landowner. Reporting levels will be at the end of years 1,2,3,5,10 and 15. The monitoring and reporting plan will be reviewed following each year of survey work by the stakeholder group.

The management recommendations within this OBEMP are based on the findings of Chapter 8: Ecology, Appendix 8.1: Habitat Survey and National Vegetation Classification and Appendix 8.2: Protected Species Surveys.

1.2 Legal Context for Biodiversity Enhancement

The Fourth National Planning Framework (NPF4[1]) was formally adopted on the 13th of February 2023 and is a material consideration for this development. NPF4 Policy 3: Biodiversity introduced a new requirement for development proposals to demonstrate that all development will contribute to the enhancement of biodiversity, including where relevant restoring degraded habitats. Proposals for national or major development, or for EIA development, need to demonstrate significant biodiversity enhancements, in addition to any proposed mitigation.

At present there is no single accepted methodology for measuring biodiversity loss or gain within Scotland, however the Scottish Government's Delivery Programme includes research exploring options for developing a biodiversity metric or other tool, specifically for use in Scotland. This research report 'Research into Approaches to Measuring

[1] National Planning Framework 4. https://www.gov.scot/publications/national-planning-framework-4/

Biodiversity in Scotland', was published 20th September 2023[2], and considers methodologies for measuring biodiversity at site-level, for use in Scotland. A final metric has not been proposed, and unique elements specific to habitats within Scotland were addressed and how best to proceed.

NatureScot's 'Developing with Nature'[3] guidance includes examples of widely applicable measures which can contribute to the overall enhancement of biodiversity. Other policies and strategies that target biodiversity include the following;

- Nature Conservation (Scotland) Act 2004[4].
- Scottish Biodiversity Strategy: Scotland's Biodiversity - It's in Your Hands (2004)[5].
- 2020 Challenge for Scotland's Biodiversity (2013)[6].
- Scottish Biodiversity Strategy to 2045: Tackling the Nature Emergency in Scotland[7].
- Pollinator Strategy for Scotland 2017-2027[8].
- Comhairle nan Eilean Siar: Local Biodiversity Plan[9].
- Comhairle nan Eilean Siar: Western Isles Woodland Strategy[10][11].

[2] McVittie, A., Cole, L., McCarthy, J., Fisher, H., and Rudman, H. (2023) Research into Approaches to Measuring Biodiversity in Scotland, Final Report to Scottish Government, at https://www.gov.scot/publications/research-approaches-measuring-biodiversity-scotland/

[3] Developing with Nature Guidance. https://www.nature.scot/doc/developing-nature-guidance

[4] https://www.legislation.gov.uk/asp/2004/6/contents

[5] https://www.gov.scot/publications/scotlands-biodiversity---its-in-your-hands/

[6] https://www.gov.scot/publications/2020-challenge-scotlands-biodiversity-strategy-conservation-enhancement-biodiversity-scotland/

[7] https://www.gov.scot/publications/scottish-biodiversity-strategy-2045-tackling-nature-emergency-scotland/

[8] https://www.nature.scot/doc/pollinator-strategy-scotland-2017-2027

[9] https://www.cne-siar.gov.uk/planning-and-building/conservation/biodiversity/

[10] https://www.cne-siar.gov.uk/planning-and-building/conservation/western-isles-woodland-strategy/

[11] https://www.cne-siar.gov.uk/media/4358/woodland-complete.pdf

2 SITE BASELINE

2.1 Site Description

The Proposed Development is to comprise of three turbines up to 86m to tip, at the existing Monan Wind Farm which presently comprises of three turbines 46m to tip. The proposed turbines would replace the existing turbines and their locations are proposed in close proximity to the current positions. The development is to include; a compound area, new and existing access tracks, turbines, hardstanding and fixed cabinets (Figure 1).

The Proposed Development is located in an area of prominent hills and rocky outcrops on the Isle of Harris, approximately 1km east of the village of Bun Abhainn Eadarra which lies approximately 4.6km north-west of Tarbert, Isle of Harris. The site is utilised mainly for rough grazing. The development site is comprised mostly of peatland mire habitat and rocky outcrops with dry heath. The terrain within the landholding consists of raised ground, with elevation ranging from approximately 220 - 250 AOD. The land slopes down to the south via an access track, to the A859 road.

2.2 Ecological Context

The site is situated in an area of open upland ground with peatland, blanket bog, bog pools, wet heath, lochans and rocky outcrops. The soil consists of peaty gleys with dystrophic semi-confined peat, comprising a mixture of Class 1 and 2 Peat. The vegetation types include blanket bog, wet heath dry heat and acid and neutral grassland to a lesser extent.

There are multiple drainage systems throughout and along track edges originating from the original wind farm development. The land is utilised for animal grazing. Baseline protected species surveys noted mountain hare and otter evidence, along with common frog.

The North Harris SSSI, SAC and North Harris Mountains SPA are situated 875m to the west of the Proposed Development site. The West Coast of the Outer Hebrides SPA is 1.2km south of the Proposed Development site. The site is within the Harris - Uig hills Wild Lands.

2.3 Assessment of Potential Effects

It was noted that there would be direct loss of habitat of blanket bog, wet dwarf shrub heath, dry dwarf shrub heath and a mosaic of dry heath and acid grassland. The total direct habitat lost to the proposed repowering infrastructure for all habitat types was predicted to be 0.52Ha. The direct and potential indirect loss of blanket bog, wet heath, dry heath and acid grassland was considered minor and not significant within the context of the site and the wider area.

3 BIODIVERSITY ENHANCEMENT PRESCRIPTIONS

There are appropriate compensatory measures included within the EIA as standard under the mitigation hierarchy, and biodiversity enhancement measures are additional under NPF4. This addition will ensure securing positive effects for biodiversity under NPF4, as a cross-cutting theme to not only include Policy 3: Biodiversity, and as an example, include other policies such as Policy 5: Soil.

Additionality is important in securing a Nature Positive future and the biodiversity enhancement plans have the aim to commit to adding and restoring Scotland's natural environment and supporting wildlife and thriving communities where design, quality and place are fundamental.

Additionality will include a selection of biodiversity measures that are considered to ensure the opportunities for enhancement that can achieve the greatest benefit for nature. These additional biodiversity measures are of an ecological and practical nature and include the most suitable and locally appropriate biodiversity measures specific to the location of the Isle of Harris, and the proposed development area. These selected measures aim to provide homes for nature, and enhance the nature found on the site and in its surroundings. This follows the advice in the Developing with Nature Guidance (NatureScot: Guidance on securing positive effects for biodiversity from local development to support NPF4 policy 3c) (further details below).

The provision of enhancement of biodiversity for the proposed scheme will be via a final Biodiversity Enhancement Management Plan (BEMP) which will be the framework for achieving this and ensuring its success.

Appropriate compensatory measures included as standard under the mitigation hierarchy, include the direct impact on habitat loss and indirect impacts due to edge effects of the Proposed Development and drainage systems. Historical impacts of edge effect and drainage systems of the original Monan Wind Farm will be addressed within these compensatory measures.

Biodiversity enhancements have been identified in proportion to the opportunities on site, scale of the development and informed by the ecological baseline survey and desktop study of the habitats on the Isle of Harris, including woodland strategies, Western Isles Local Biodiversity Action Plan, Native Woodlands Habitat Action Plan[12].

The assessment of the biodiversity baseline investigates distinctive habitat types such as terrestrial habitats, and linear features such as watercourses. The proposal for enhancement has therefore included defined objectives according to two of the habitat types located within the Proposed Development Ecological Survey Area (ESA) and includes Terrestrial Habitats and Watercourse Habitats.

[12] Native Woodlands Habitat Action Plan https://www.north-harris.org/_files/ugd/cec29e_8ca5b065ccba4d1eac75a2e82234d3ad.pdf

3.1 Aims

The aims outline the overall goals of the BEMP, while the objectives break down the aims into measurable targets. The prescriptions outline the recommended actions that should be taken to accomplish these aims and objectives. An indicative timetable is provided for implementing the various prescriptions.

The NVC habitats on Site have been determined as mainly in good overall condition, with slight impact due to drainage channels causing bare peat, edge effects of track and hardstanding's, and grazing. An area of habitat has been impacted by the wind farm development track and overhead powerline where the wind farm track leaves the main A859 road. Therefore, two main aims are as follows;

- **Aim 1**: Restore and enhance the habitat along drains/ditches.
- **Aim 2**: Habitat creation.
- **Aim 3**: Additional biodiversity measures.

3.2 Defined Objectives

The defined objectives include biodiversity enhancement measures, as follows;

a) Aim 1: Restore and enhance the habitat along track edges and ditches

Objective 1: Reduce bare peat soil by re-profiling of exposed peat along drains and revegetating the exposed surface. This is to include other areas where bare peat is exposed.

b) Aim 2: Habitat creation

I. Enhancement of Terrestrial Habitats

Objective 1: Scrub and small-growth tree planting, to include both species-rich scrub and small-growth trees (broad-leaved species) planting of species of local provenance, in an area selected for biodiversity enhancement in the southern section of the survey extent where the existing wind farm entrance is located and where the ground has been disturbed (Figure 2). Constraints in this section are the overhead lines (OHL) that run parallel to the A859, and no trees are advised within the OHL corridor.

This will provide shelter and commuting corridors for otters, birds, and increase insects and nesting potential for birds. It will also provide shelter for other species such as mountain hare.

II. Enhancement of Watercourse Habitats

Objective 1: Management of Bank Side Vegetation, via riparian planting in appropriate areas within the Site to deliver benefits to aquatic species such as macro-invertebrates. This would include the casting of shade, maintenance of cool water temperatures, provision of cover and sources of food from infalling litter and insects, and to deliver

opportunities for other wildlife, including foraging and commuting for terrestrial mammals (including otter), birds and reptiles. This objective can be met in sections along the un-named watercourses that flow south and connect to the Abhainn Ceann an Ora and into Loch na Sgeireagan Mor with connectivity to Loch na Sgeireagan Beag and Loch a'Mhorghain.

Objective 2: Riparian Planting, to include both continuous and discontinuous scrub planting of species of local provenance, to provide cover for commuting otters, and potentially rest site opportunities in denser areas of planting. Benefits for other biodiversity including amphibians and insects will benefit otters and birds by potentially increasing food resources.

c) Aim 3: Additional biodiversity measures

Objective 1: Included are a selection of additional biodiversity measures that are considered to ensure the opportunities for enhancement can achieve the greatest benefit for nature. These additional biodiversity measures are of an ecological and practical nature and include the most suitable and locally appropriate biodiversity measures specific for the location, site and proposed development. The aim of these selected measures is to provide homes for nature, and enhance the nature found on the site and in its surroundings.

3.3 Management Prescriptions

3.3.1 Improvements to Track Edges and Ditches

The proposed development provides ample opportunity to improve and enhance the habitat along the track edges and ditches that have been impacted by the present wind farm during its development. This mainly includes exposed bare peat (Figures 3 – 4). The ditch edges will be re-profiled and vegetated turves placed over exposed peat. The vegetated turves are to be sourced within the vicinity, where there is ample healthy vegetation.

3.3.2 Habitat Protection & Enhancement

There are multiple bog pools (Figure 5) and flush channels in the area of the proposed development, and it is essential that these are protected as they provide essential habitat for wetland plants, dragonflies and other invertebrates. The CEMP will provide standard mitigation procedures to safeguard these sensitive habitats.

3.3.3 Small Tree & Scrub Planting

Where the present Monan Wind Farm track leaves the A859 road there is an area of hardstanding that sites the sub-station electrical units and machinery (Figure 6). It is

proposed that this area is landscaped to present a softer and more pleasing view of these units, or their replacements.

The habitat that is adjacent to the main road and extends over the flatter ground to the southwest of the site entrance is in poor condition (poor acid grassland and impoverished mire and bog), mainly due to disturbance impacts of the development (Figure 7). It is proposed to enhance this habitat by planting scrub and small-growth trees native to the western isles and suitable for the habitat conditions. This will assist in screening any substation and ancillary buildings. This will increase biodiversity by creating habitat for birds and other local wildlife, providing shelter and enhancing the landscape.

The scrub and small-growth trees recommended for this area should follow the Comhairle nan Eilean Siar: Western Isles Woodland Strategy and Local Biodiversity Plan.

Historically the Western Isles did consist of woodland, however, woodland now covers a small area on the Western Isles mainly fragmented and in refugia areas which are safe from herbivores and strong winds. The proposed development presents a great opportunity to build upon the existing woodland to further progress the Woodland Strategy, via scrub and small-growth trees, which will contribute to a more diverse environment and compliment the diverse habitat and geology in the area such as, moorland, rocky outcrops and varying soil types.

The specific area would have to be under advisement and will depend on multiple factors, such as soil type, wind exposure and protection from herbivores.

The types of scrub and small-growth trees should be of local provenance (to safeguard the genetic variety specific to the environmental conditions of the Western Isles), and complimentary to the area and site conditions. They can include the following;

- Eared willow (*Salix aurita*)
- Grey willow (*Salix cinerea*)
- Rowan (*Sorbus aucuparia*)
- Hazel (*Corylus avellana*)
- Juniper (*Juniperus communis*)

Downy birch (*Betula pubescens*) can be included but in an area where its height is not an issue with the OHL.

3.3.4 Riparian vegetation

Bank-side vegetation along watercourses is to be managed to ensure the appropriate riparian vegetation is located along the watercourses. This will involve planting wetland plants in zones along with other riparian vegetation appropriate for the location, such as wetland scrub and small-growth trees.

Riparian vegetation and woodlands play a crucial role in helping maintain the health and productivity of watercourses. They protect riverbanks, control erosion, capture and

recycle mineral nutrients, filter pollutants, provides invertebrate food for juvenile salmon and sea trout, provides wildlife corridors and buffers, and increases biodiversity.

There is ample opportunity for riparian planting locations along the Abhainn Ceann an Ora. Further details would have to come under advisement from NatureScot and the Local Biodiversity officer.

All planting will have to be protected from herbivore grazing, otherwise they will fail.

3.3.5 Additional biodiversity measures

The aim of these selected measures is to provide homes for nature, and enhance the nature found on the site and in its surroundings. Thus, to further improve the site the following species-specific habitat provisions are recommended;

- Refugia/hibernacula in the form of external and buried log piles within areas of open space (such as between scrub and tree planting areas) to provide suitable shelter for amphibians and reptiles and to further enhance biodiversity.
- Inclusion of insect and bee hotels within areas of open space (such as between scrub and tree planting areas) and at site boundaries.
- Planted trees will not initially support bird boxes, but these could be placed on structures or poles within or near to the area.

Further details are listed in Appendix A and the advice follows the guidance within the Developing with Nature guidance (Guidance on securing positive effects for biodiversity from local development to support NPF4 policy 3c).

3.3.6 Education Pack & Notice Board Renewal

It is advised that an education pack is produced for the public and schools to highlight the diversity in the area, such as rocky outcrops, bog habitats and pools, that are host to birds, invertebrates, amphibians, reptiles and diverse plants such as mosses and insectivorous plants. Concomitantly, the existing notice board (Figure 8) on the local fauna and flora at the entrance to the Monan Wind Farm will need to be updated and expanded as part of community education and involvement.

The notice board is to be child and community-friendly and may include local artwork, such as designed by a local designer and illustrator or a carved stone or other material.

4 MONITORING

4.1 Scrub & Small-Growth Tree Protection and Monitoring

The scrub and small-growth trees will be protected from herbivore damage with the use of deer fencing and/or tree tubes.

Scrub and trees planted will be monitored for the first five years following planting to ensure successful establishment. Scrub and trees will be inspected by suitably experienced personnel and evidence of damage (e.g., browsing by deer) or disease will be recorded. The levels of herbivore damage recorded. Browsing damage for all species should aim to be <10%. If damage is above this level then additional protection measures will be required.

Where necessary, failed scrub and trees should be replaced in the appropriate season following the inspection. The presence of any invasive non-native species will also be a focus of the inspection, with any specimens recorded being removed in a timely and appropriate manner.

4.2 Vegetation Monitoring

The objective of the vegetation monitoring will be to determine the effectiveness of the management and assess the need to alter management prescriptions. Quantitative transects and fixed-point surveys will be undertaken.

Monitoring of vegetation should record the main species colonising the site, the location and extent of any undesirable species, and the extent of re-vegetation which has occurred at the time of each survey. Appropriate areas for targeting these surveys along with survey routes will be identified following the baseline survey.

At each quadrat location in each survey year a fixed geo-tagged photograph will be taken to visually catalogue regeneration. The monitoring will give an indication of the rate of vegetation regeneration and whether further measures are necessary.

GPS coordinates will be taken of each transect location and all quadrats during the first survey, so that the same area is revisited and accurately surveyed over time.

If during vegetation surveys areas are found to not regenerate at an acceptable rate, remedial action should be considered and implemented.

4.3 Riparian Vegetation Monitoring

Planted areas along watercourses will be monitored for the first five years following planting to ensure successful establishment. Riparian vegetation (wetland plants and trees) will be inspected by suitably experienced personnel and evidence of damage (e.g., browsing by deer) or disease will be recorded. Where necessary, failed plants and trees should be replaced in the appropriate season following the inspection. Presence of any invasive non-native species will also be a focus of the inspection, with any specimens recorded being removed in a timely and appropriate manner.

5 FIGURES

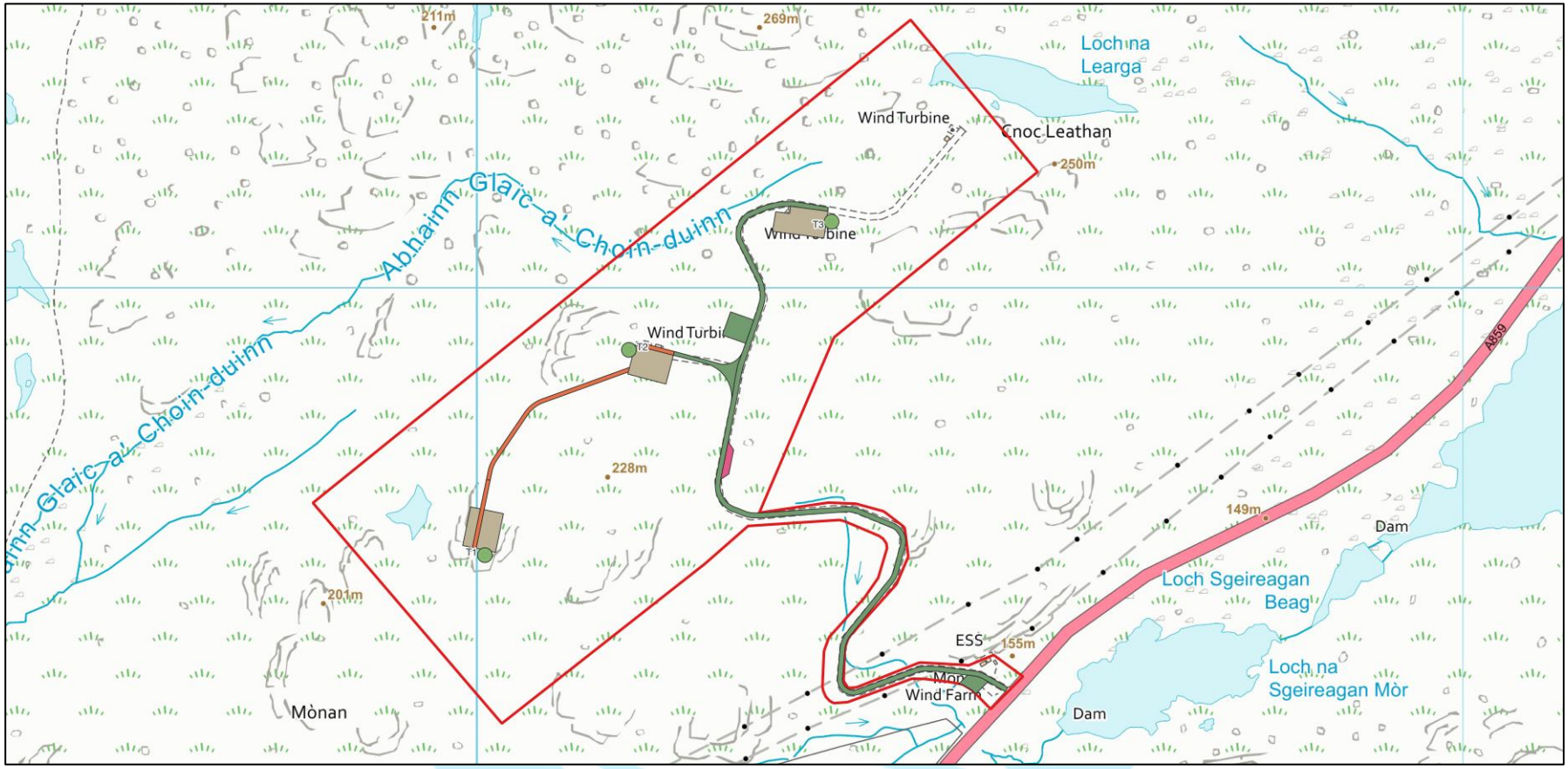

Figure 1: Monan Repower application boundary (red line).

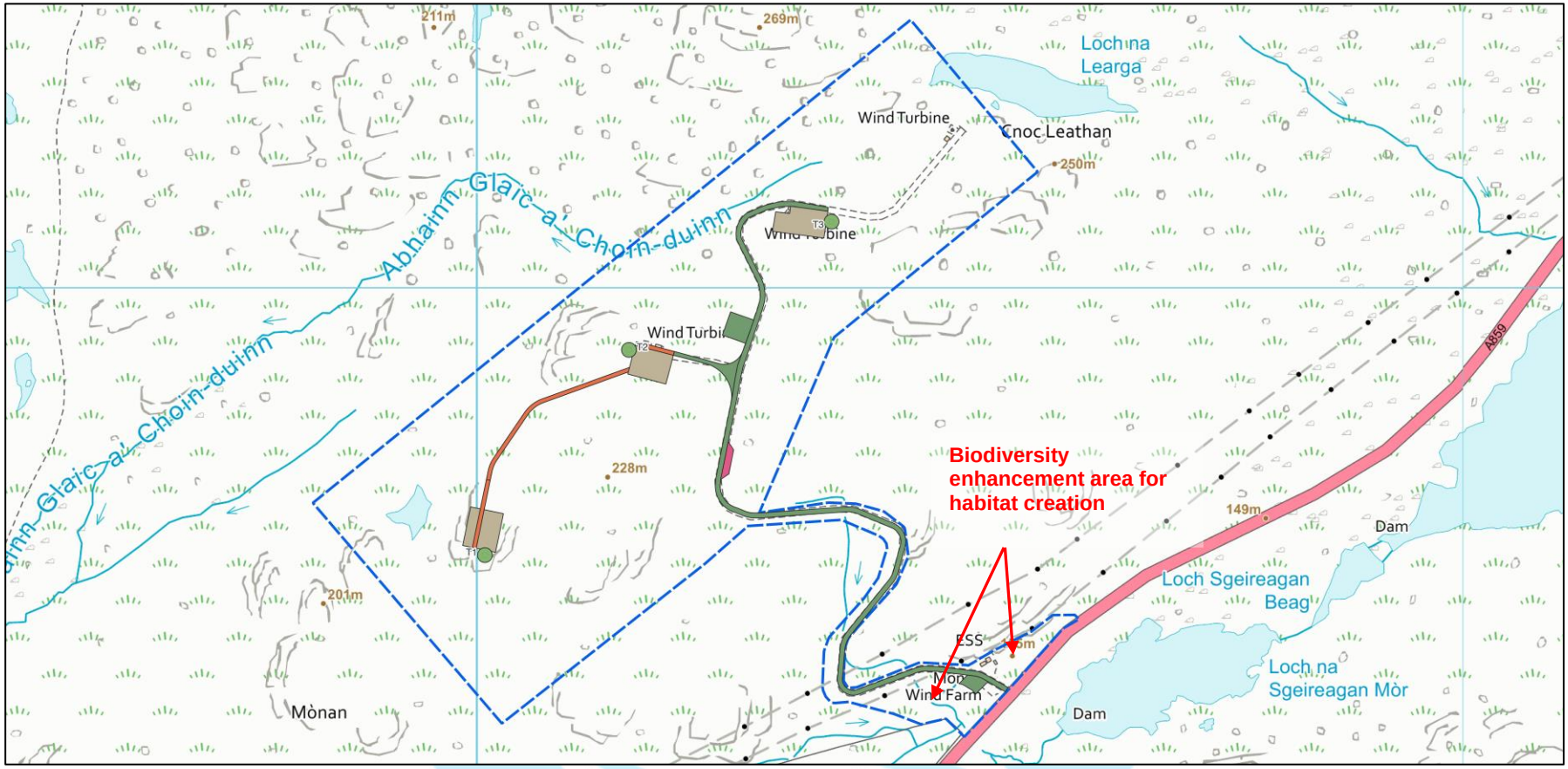

Figure 2: Monan Repower biodiversity enhancement boundary expanded at the wind farm entrance. (blue dashed line).

Figure 3: Exposed bare peat along a ditch edge.

Figure 4: Exposed bare peat on flatter ground.

Figure 5: Multiple bog pools in the area.

Figure 6: An area of hardstanding that sites the sub-station electrical units and machinery.

Figure 7: The habitat adjacent to the main road and extends over the flatter ground to the southwest of the site entrance is in poor condition. Area for habitat creation and enhancement.

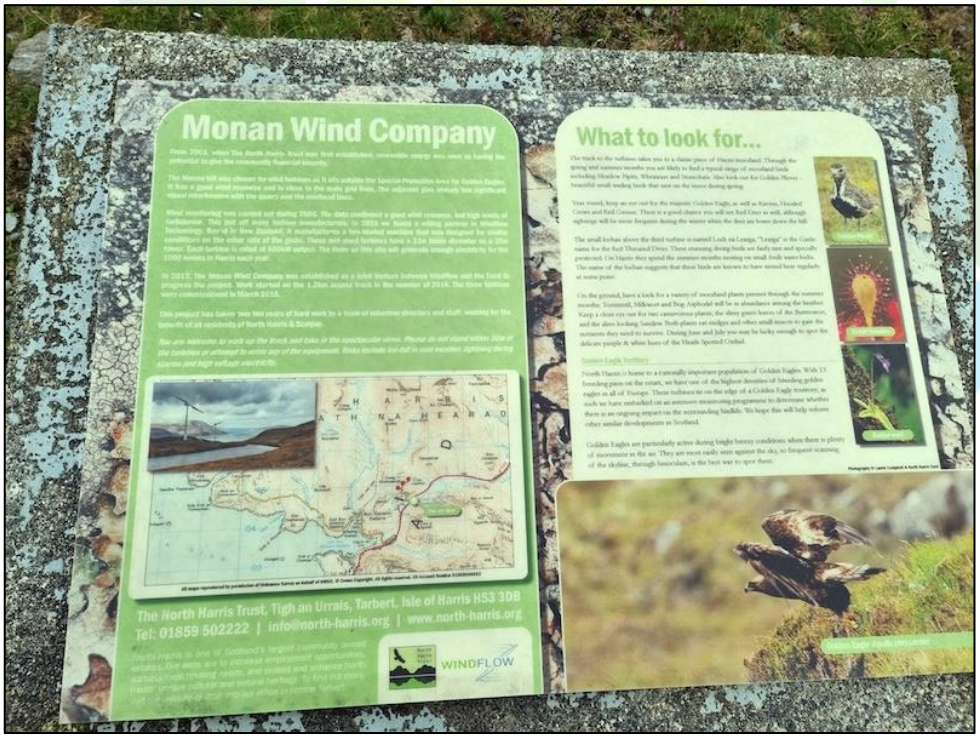

Figure 8: The existing notice board on the local fauna and flora at the entrance to the Monan Wind Farm will need to be updated and expanded as part of community education and involvement.

APPENDIX A: ADDITIONAL BIODIVERSITY MEASURES

A. Refugia/Hibernacula: Log and Leaf Piles (Developing with Nature guidance[13]: Measure 8: Log and Leaf Piles)

This is a loosely organised pile of logs and leaves that creates a habitat of slowly decaying wood. The log material should be sourced on site (or from as close as possible), for example using cut material from tree felling, thinning or pruning.

Method

A shallow scrape is dug in the ground which is lined with leaf litter or wood chips. Logs of varying sizes are arranged irregularly on top of this to create a wide range of different-sized voids and entrances. Smaller logs and twigs can be placed in gaps, and leaf litter or bark chips added over the top. This will require 1 to $2m^2$ several log piles can be placed across the park area where there is minimal disturbance and at least partial shading to reduce drying out and restricting the invertebrates. Placing refugia in different habitats with different levels of shade will support more biodiversity.

The log and leaf piles can be created on top of buried hibernacula features and will provide year-round shelter for amphibians and other invertebrate species.

Management

Low-level management of log and leaf piles is required. The log and leaf piles will require new wood or leaf material to be added as the original material decays, preferably using material collected on-site (do not use grass clippings). Leaf piles may require additional leaf litter added more regularly or built up in the autumn due to faster decay. The method needs to be done carefully so as not to disrupt the present habitat and should avoid hedgehog breeding (mid-April to September) and hibernation periods (November to end of February). The log and leaf piles should be monitored twice per year (March and October).

[13] Developing with Nature guidance. https://www.nature.scot/doc/developing-nature-guidance

B. Underground Hibernacula and Rock Piles (Developing with Nature guidance: Measure 9: Hibernacula)

Hibernacula's are important as they provide habitat and shelter for a wide range of invertebrates, small mammals, amphibians and reptiles, and can be particularly important for the latter two when placed near ponds and water courses. They provide over-wintering hibernation sites for pollinator and predatory species.

Method

A hole is dug in the ground and a layer of stones is placed on the floor, followed by logs and twigs (and possibly more rocks), to create a chamber within the hole. This can be built up to ground level or higher to form a mound (which could provide a bee bank) and covered with soil but leaving access to the covered chamber (access can be achieved by including short sections of pipe). An alternative is a rock pile, with a range of rocks and stones filling the hole to provide different-sized voids, and left uncovered. The hibernacula is best situated on south-facing slopes away from tree roots and the potential of disturbing reptiles. The hibernacula should be situated in an area with some shade and ground cover is best suited to avoid drying out. For rock piles particularly some direct sunlight can help it act as a basking area for insects. Siting in different habitats with different amounts of shade will support more biodiversity.

The area required will be approximately $1m^2$, with multiple hibernacula's placed across the park area in an undisturbed location so as not be driven over by machinery for access, and avoid areas at risk of flooding, as hibernating animals could potentially drown. Areas to be located can include around the edges of wetland or watercourse edges, and where they will not be impacted by flood/high water levels. These can act as year-round shelter for amphibians, reptiles and invertebrate species. Rock piles can be incorporated in open areas, as these can be used as basking areas and for shelter.

Ensure that they are kept free of both vehicle and foot traffic, as their weight could collapse the hibernacula beneath.

Management

Low-level management of the entrances into the hibernacula is required. These should be kept clear of blockages to allow access. Rock piles need to be kept free of encroaching vegetation to leave the area clear and allow sunlight to penetrate. The hibernacula's should be monitored twice per year.

C. Insect Hotels/Bees (Developing with Nature guidance: Measure 10: Homes for Bees)

A variety of constructed features can be utilised as bee hotels, these include small tube-like tunnels suitable for solitary bees, bee boxes[14] (with inner tubes) and bee banks. These support tunnel-nesting insects, particularly solitary bees and a large number of invertebrate species requiring bare ground or using tunnels for shelter and hibernation. These features can be incorporated with wildflowers, which can provide pollen and nectar for bees, wasps and other invertebrates, and provide pollination of plants in the wider area.

Method

Multiple bee boxes and banks can be established across a site, in undisturbed areas. Bee boxes are usually a wooden box with no front. The inside of the box is filled with cut bamboo canes and blocks of wood with holes drilled in them to create tunnels. These can be installed at any stage and placed on a range of structures (buildings or tree) but require regular inspection for maintenance and potential replacement. The bee box is to be situated approximately 1 meter above the ground where the entrance will be unobstructed, in an open unshaded area with a south or south-east facing aspect.

Bee banks can be incorporated into the site landscape works, and will require ground space, with a minimum area of 2 x 2m^2. The bee bank should be situated in direct sunlight for at least half of the day.

Management

Bee boxes require vegetation in front of them to be managed to ensure entrances are not covered or shaded. Bee boxes are more vulnerable to damage and water ingress over time and require regular inspection, with repairs and replacements undertaken only when unoccupied.

Bee banks require regular but low-level management. Areas of bare ground must be kept vegetation free. For some ground-nesting bees it is important to leave clumps of grass and tufty edges un-mown for the bees to use.

[14] Promoting pollination with bee houses. https://www.nature.scot/sites/default/files/2019-02/Bees%20-%20Solitary%20bees%20-%20promoting%20pollination%20with%20bee%20houses.pdf

D. Bird Boxes (Developing with Nature guidance: Measure 13: Homes for Small birds)

Nest boxes can be fixed to a pole structure within or near to the area, as planted trees will not initially support bird boxes. Different species of birds nest in different sized and shaped boxes. The advised boxes for this development include General Nest Boxes.

General Nest Box

The standard nest box is suitable for multiple bird species dependent on the diameter of the nesting hole, or alternatively providing an open front rather than a hole as an entrance. For some species, the standard box is larger (such as for starlings) or placed in groups to encourage breeding success (such as for sparrows).

Nest box examples (other options via other manufacturers available) are listed in the table below;

Bird Boxes	Size	Suitability
Schwegler 1B Nest Box	Entrance: 26mm, 32mm or Oval (29 x 55mm)	26mm – blue tits, coal tits, marsh tits, crested tits; 32mm – tree sparrows, house sparrows; Oval – redstart
Woodpecker/Starling Nest Box	Entrance: 45mm	Great crested woodpeckers and starlings

Method

General nest boxes can be securely mounted on a pole structure in particular when the trees are not mature enough, with a north-east to north-west aspect to avoid overheating from direct sunlight. They require some shelter from the prevailing weather and an unimpeded flight entrance. They are to be placed at least 2 meters off the ground and avoid access from predators. However, access will be required for maintenance and cleaning out.

Management

The general nest boxes will require checking and cleaning annually (between October and January), to remove nests from the past year and any abandoned wasp or tree bumble bee nests. Any signs of damage or decay will need repairing or boxes replaced, and the mounting point to trees or pole structures checked to ensure it is secure and will remain so for the year ahead.