

**Carnaig 400 kV Substation
Environmental Impact Assessment
Volume 4
Technical Appendix 5.2
Outline Landscape and Ecological
Management Plan
October 2024**



1. OUTLINE LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN

1.1 Introduction

The purpose of this Outline Landscape and Ecological Management Plan (OLEMP) is to provide outline operational guidance for the management and maintenance of the landscape and ecological mitigation, proposed at Carnaig Substation and meet the proposed Biodiversity Net Gain (BNG) commitments. The OLEMP will be developed into a Landscape and Ecological Management Plan (LEMP) post consent and provided to the appointed contractor.

The document sets out the details of establishment periods to the proposed mitigation / BNG planting for the first five years post completion, provides a detailed summary of management requirements for years 6 – 10 and provides an overview of longer-term management for year 11 onwards. As part of this it sets out requirements both for operational works and for monitoring and reporting.

The document also describes the soft landscape estate for SSEN Transmission (Scottish and Southern Electricity Networks Transmission) and is to be used by the appointed contractor and their consultants as an operational manual for undertaking management and maintenance works. Monitoring and reporting requirements are also provided.

The OLEMP comprises the following sections:

- Introduction – provides the purpose of this Outline Landscape & Ecological Management Plan.
- The Site – a brief description of the Site, its location context and history and including a site location plan.
- Biodiversity Net Gain - includes a description of the approach and baseline biodiversity conditions across the Site.
- The soft landscape / ecological and habitat estate describes the design principles followed to develop the scheme and sets out the function of each habitat type / landscape / ecological elements.
- Maintenance and management:
 - Years 1 to 5: detailed prescriptions;
 - Years 6 to 10: outline of prescriptions;
 - Year 11 on: summary of future management requirements;
- Appendix A Planning Context – provides the template to be adopted by the OLEMP for setting out the planning history, relevant planning conditions and other commitments relevant to the landscape and ecological mitigation; and
- Appendix B Schedule of Landscape, Ecological Mitigation and Biodiversity Net Gain Requirements.

The OLEMP should be read in conjunction with **Chapter 5** (Landscape and Visual Impact Assessment) and **7** (Ecology and Nature Conservation) of the Environmental Impact Assessment Report to the proposed Carnaig Substation. These chapters and associated appendices provide details on the baseline landscape and ecological conditions and the basis for the proposed mitigation measures.

1.2 Reviews and Updates to the Finalised LEMP

The finalised Landscape and Ecological Management Plan shall be reviewed periodically every five years and interim reviews will be undertaken where required as the landscape and ecological features establish and mature, or deviation from the management aims is required in order to address potential issues e.g. presence / establishment of invasive species.

The OLEMP requires the monitoring of the habitat / landscape elements and of watercourses which will be detailed in the finalised LEMP. The results of monitoring will assist SSEN Transmission to determine if the aims of the LEMP have been met, and to identify any actions or changes to management or maintenance that may be required.

2. THE SITE

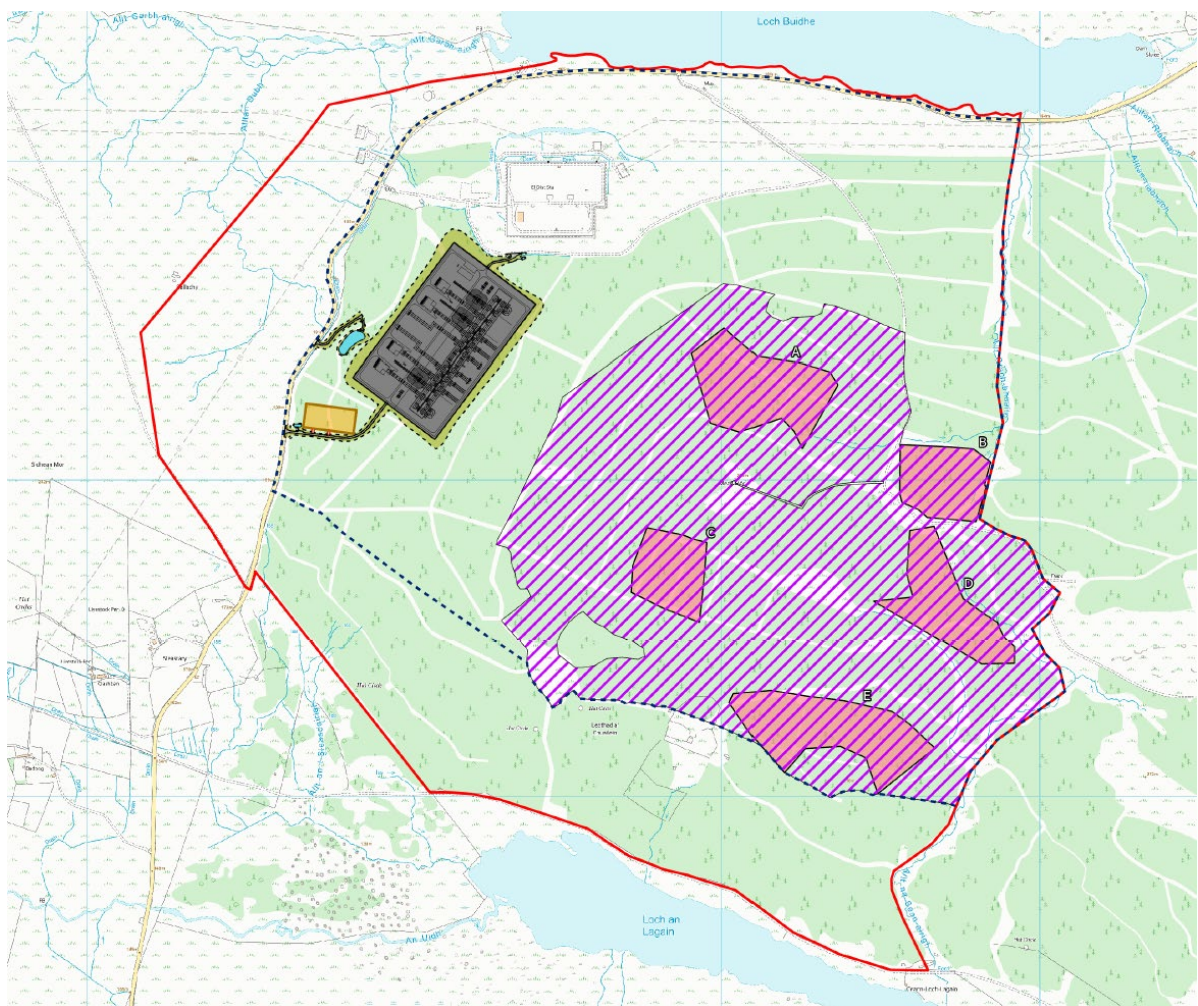
2.1 Location

The site of the Proposed Development is located approximately 9.5 km north east of Bonar Bridge in northern Scotland. The specific location of the proposed Carnaig 400 kV Substation (hereafter referred to as the 'the Site') is adjacent to the south western boundary of the existing 275 kV Loch Buidhe Substation at grid reference NH 65053 97458. The OLEMP covers the land surrounding the proposed Carnaig Substation and the proposed areas of peat restoration works.

The location of the Proposed Development is shown below in **Figure 1**. The red line boundary shows the extent of the Proposed Development and includes areas of peat restoration in hatches (**Figure 2.1** Proposed Development, of the EIAR).

The Site is located within an area of commercial forestry, which has been partially felled. Lochbuie Road runs to the west of the Site. The existing Loch Buidhe Substation (completed in 2016) is located on the slope to the south of Loch Buidhe, approximately 100 m north of the proposed Carnaig Substation.

Figure 1: The Proposed Development



2.2 Site Context and History

2.2.1 Landscape Context

The Proposed Development is located on the eastern side of a broad, open valley area, on the lower, north west facing slopes of Meall Mor. These slopes are covered with coniferous plantation which is actively managed. The landscape surrounding the Proposed Development largely comprises moorland with small areas of farmland (typically found to the south, peatlands dominating the north). The location is surrounded by coniferous woodland which extends to the east across the slopes of Beinn Domhnaill. The Proposed Development is located wholly within Landscape Character Type (LCT) Rounded Hills – Caithness & Sutherland. Key characteristics of the LCT include:

- "Rolling hills forming broad, subtly rounded summits but with some more pronounced hills also occurring, these often featuring steeper slopes along the coast or where deeply truncated by deep glens.
- Predominantly dense heather ground cover and moorland grasses, but also some areas of bog.
- Fragments of broadleaf woodland in inaccessible locations.
- Scarcely settled with a largely uninhabited interior and widely scattered crofts and farms on lower slopes adjoining straths and farmed landscapes.
- Wind farms located in more accessible and generally lower rolling hills, either close to extensive forestry or the high voltage transmission line aligned broadly parallel to the south east Sutherland coast.
- Convex character of hill slopes limiting distant visibility and views of the hill tops when travelling through the landscape.
- Views into the interior of the hills very restricted.
- Strong sense of wild character can be experienced within the more remote and littlemodified parts of this landscape".

The Proposed Development does not fall within a nationally or regionally designated landscape.

2.2.2 Ecology Context

The Proposed Development lies entirely within the Strath Carnaig and Strath Fleet Moors Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI) which are designated for supporting 12 breeding pairs of hen harrier (*Circus cyaneus*) (further information provided within the Habitat Regulations Appraisal (HRA)) in the EIAR. The SPA is currently in unfavourable condition, with pressures relating to agricultural operations, burning, development, forestry operation, game / fisheries management and plant pests and diseases. The main habitats of the SPA are extensive heather moors and upland acid grasslands. There are also areas of commercially planted conifer and semi-natural broadleaf woodland. The River Evelix Special Area of Conservation (SAC), designated for its nature conservation importance, lies within 2 km of the Proposed Development boundary.

There are no Local Nature Conservation Sites across the Site and there are no areas of woodland listed on the Ancient Woodland Inventory (AWI) across the Site. Furthermore, there are no trees or woodland protected by Tree Preservation Orders identified within the Site.

3. BIODIVERSITY NET GAIN

3.1.1 Approach to Biodiversity Net Gain

A full BNG Assessment was undertaken for the Proposed Development. The BNG assessment was completed within the SSEN Biodiversity Toolkit following the guidance provided in the SSEN Biodiversity Net Gain Toolkit User Guide (2023). The approach has been revised to align with Natural England Biodiversity Metric 3.1, adapted to reflect the requirements of Scottish habitats, to quantify losses and gains of biodiversity. Data were collected on type, area, and condition of the habitat across the Site of the Proposed Development, indicating the biodiversity present on-site before the work begins. The same tool was used to calculate the biodiversity losses and the units resulting from the proposed habitat creation after works. The outcomes have been used to ensure the biodiversity targets are being met for the Proposed Development.

The SSEN Transmission BNG toolkit assesses losses of area and linear habitat separately. The Toolkit produces a Unit score for three categories of habitat: Biodiversity Units, Linear Hedgerow (H) Units and Linear Watercourse (W) Units. Linear habitats in the form of running water and ditches were recorded within the Site. There were no hedgerow habitats recorded within the Site.

As the Proposed Development is within the Strath Carnaig and Strath Fleet Moors SPA and SSSI, the proportion of habitat creation and enhancement works that can be counted towards BNG must be balanced against the Applicant's statutory duty under Section 12 of the Nature Conservation (Scotland) Act 2004 to take "reasonable steps" to "further the conservation and enhancement of the natural feature specified in the SSSI notification". Currently there is no definitive guidance on 'additionality' when considering BNG and designated sites.

3.1.2 Biodiversity Baseline

The baseline habitats impacted by the Proposed Development (including peatland restoration) comprise approximately:

- Grassland - Upland acid grassland: 3.615 ha;
- Heathland and shrub - Upland Heathland: 0.206 ha;
- Urban - Artificial unvegetated, unsealed surface: 0.003 ha;
- Urban - Developed land; sealed surface: 0.930 ha;
- Wetland - Blanket bog: 26.571 ha;
- Wetland - Purple moor grass and rush pastures: 0.053 ha;
- Wetland - Upland flushes, fens and swamps: 3.752 ha; and
- Woodland and forest - Other coniferous woodland: 178.737 ha.

3.1.3 Temporary Impacts and Retained Habitats

Impacts to habitats which are reversible and can return to same extent and ecological condition within two years of the initial impact, can be considered temporary. Temporary impacts have not been included in the toolkit calculations as there are no permanent adverse impacts. No temporary impacts relating to the Proposed Development have been identified.

Retained habitats have not been included in the toolkit calculations as there are no permanent adverse impacts. The retained habitats are summarised approximately here:

- Grassland - Other neutral grassland: 5.501 ha;
- Grassland - Upland acid grassland: 5.768 ha;
- Heathland and shrub - Mixed scrub: 1.012 ha;
- Heathland and shrub - Upland Heathland: 7.132 ha;
- Rivers and Lakes - Eutrophic standing waters: 0.314 ha;
- Urban - Artificial unvegetated, unsealed surface: 10.716 ha;
- Urban - Developed land; sealed surface: 4.093 ha;

- Wetland - Blanket bog: 49.256 ha;
- Wetland - Purple moor grass and rush pastures: 3.108 ha;
- Wetland - Upland flushes, fens and swamps: 7.795 ha;
- Woodland and forest - Other coniferous woodland: 150.307 ha; and
- Woodland and forest - Other woodland; mixed: 12.755 ha.

4. THE SOFT LANDSCAPE / ECOLOGICAL AND HABITAT ESTATE

4.1 Design Objectives

The soft landscape estate at the proposed Carnaig Substation has been designed to promote habitat connectivity, provide key screening of sensitive visual receptors, expand hen harrier habitat areas, restoration of blanket bog and improvements to existing watercourses and meet BNG targets. These design principles will be realised through the adoption of the design objectives provided in **Table 1**.

Table 1: Design Objectives

	Design Objective
Landscape and Visual	<p>Provide screening buffers to sensitive receptors at Loch Buidhe and residential properties to the south west through the planting of upland birch woodland between the Proposed Development and Lochbuie Road.</p> <p>Integrate the substation into the local landscape through the planting of woodland.</p>
Habitats	<p>The creation / enhancement of blanket bog, native pine woodland and upland birchwood will contribute to the conservation action for these Scottish Biodiversity List habitats.</p> <p>The proposed creation of native pine woodland and upland birchwood with a mosaic of species rich-grassland, bog and upland heathland within the Proposed Development also aims to support targets within the Highland Nature Biodiversity Action Plan 2021 – 2026 relating to these habitats.</p> <p>Objectives comprise:</p> <p>Restore blanket bog habitat.</p> <p>Create a mosaic of habitat types through use of scrub, rotation cutting and restoration of former hydrological regime.</p> <p>Provide habitat connectivity through and across the site.</p> <p>Provide watercourse improvement for biodiversity and habitat creation.</p> <p>Potential restoration of open land (including blanket bog) habitats.</p>
Ornithology	<p>The creation of an open mosaic of upland heath and moorland is considered to contribute to the conservation and enhancement of hen harrier through the provision of nesting and foraging habitat thereby supporting the conservation objectives of the Strath Carnaig and Strath Fleet Moors SPA and demonstrate reasonable steps taken to further the conservation and enhancement of hen harrier.</p> <p>Objectives comprise:</p> <p>Expand hen harrier habitats.</p> <p>Provide a buffer between substation and heathland / hen foraging areas.</p>
Biodiversity Net Gain	<p>The proposed post-intervention plan involves the creation of a suite of habitats which will achieve as a minimum +10% net gain, improving the habitats present for protected and notable species.</p>

5. MAINTENANCE AND MANAGEMENT

5.1 Overview

The maintenance and management actions for each habitat / landscape element are designed to ensure that the objectives set out in **Section 3** fulfil SSEN Transmission biodiversity net gain policy and / or meeting planning condition requirements.

Monitoring is required to check on the establishment of the landscape elements and progress towards achievement of their designed functions. Monitoring is also required of specific ecological mitigation items and, critically, for electrical safety and site security.

The following are general requirements of the landscape management and maintenance applicable to the lifespan of the finalised LEMP.

- All litter and debris to be removed on each visit;
- All arisings to be taken off the Site and disposed of at an appropriate recycling facility;
- By agreement with SSEN Transmission, felled logs may be retained on site to form refuges in locations away from public nuisance and would not affect future maintenance operations;
- Plant / seed failure on larger scales outside of occasional / expected normal failure shall be investigated to identify the cause prior to replacement planting or seeding;
- Weeds that affect the habitat type objectives shall be managed, primarily through cutting operations. Herbicides shall normally only be used on injurious weeds as defined under the Weeds Act 1959 and invasive non-native species (INNS) defined by the Wildlife and Countryside Act 1981 and the Wildlife and Natural Environment (Scotland) Act 2011 (as amended);
- Injurious weed shall be fully controlled, and arising disposed of at appropriate facility and by methods in line with current legislation and guidance;
- All works on existing and new trees shall be carried out in accordance with Tree work recommendations BS3998:2010 and Trees in relation to design, demolition and construction British Standard 5837:2012, and operations should be undertaken by certificated personnel from the Arboricultural Association's list of Registered Contractors;
- Maintenance operations by machinery should be appropriate to the task, and when weather and ground conditions are suitable;
- Operations shall be suspended where ground conditions prevent the use of machinery without damage to the ground surface;
- Works near or in watercourses shall have appropriate biosecurity measures to prevent ecological damage;
- The site shall be inspected at least once a year and a brief report submitted to the SSEN Transmission Project Manager setting out any issues observed on site, including but not limited to
 - any damage, compaction or excessive wear to grass areas;
 - any damage or disease to tree and shrub areas;
 - any tree or shrub growth that may provide a climbing aid to scale security fences or which intrudes into the CCTV visibility zone around the security fence;
 - any trees considered at active risk of falling onto the security fence or into the live substation; and
- In all cases where issues are noted, a proposal for reinstatement / repair or remedial work shall be submitted.
- Annual visits to include a high level 'rapid habitat assessment' focussing on monitoring the presence and condition of broad habitat types with BNG habitat condition assessments tracking BNG delivery against the target conditions and time to target conditions outlined within the Biodiversity Net Gain Assessment Report and associated Biodiversity Toolkit occurring in years 1, 3, 5, and then every 5 years. Where a change in the management of landscape / ecological features is required, the ecologist will advise on appropriate adaptive management.

5.2 Maintenance and Management Years 1-5

This section sets out the specific maintenance, management, and monitoring requirements for establishment years 1 to 5. **Schedule 1** sets out the operations and timescales. **Schedule 2** sets out the species monitoring prescriptions, responsibilities and work schedule. All works shall also meet the over-arching requirements as set out in **Section 4**.

This work is the responsibility of the landscape contractor in years 1 to 3 (depending on form of contract), and the responsibility of SSEN Operations thereafter.

Schedule 1: Landscape and Habitat Management Prescriptions, Responsibilities and Work Schedule

Landscape / habitat element	Management	Required (years)
Heath / Heather Moorland	<p>Check for Invasive Non Native Species (INNS) or noxious weeds at every site visit. If found remove by hand (where safe to do so). Spot treatment with herbicide if agreed by SSEN Transmission.</p> <p>Cut areas within 5 m of substation security fence, cutting 33% every three years. Beyond 5 m any self-sown tree or shrub growth should be controlled to ground level by cutting and no growth to exceed 1.8 m in height.</p> <p>Remove all arisings from cut areas.</p> <p>Inspect at every visit and report any requirements for remedial works to SSEN Transmission.</p>	1-5
Upland Birch Woodland	<p>Check for INNS or noxious weeds at every site visit. If found remove by hand (where safe to do so). Spot treatment with herbicide if agreed by SSEN Transmission.</p> <p>Cut areas within 5 m of substation security fence, cutting 33% every three years. Check any stakes, ties, plant guards, refix / straighten / replace as required.</p> <p>Plant beds are to be cut twice annually to minimise competition to tree growth. All plant stations to be firmed up necessary.</p> <p>At each maintenance visit check each plant station and if growth is being impacted by ground fauna. If is being affected treat as weed growth and remove 0.5 m around each plant station as required.</p> <p>All plants that are missing or dead, or which are failing to make satisfactory growth.</p> <p>Apply slow release or similar fertiliser in March / April to all tree planting stations, at manufacturers recommended rate.</p> <p>Recommended minimum of three visits per year, with additional visit for replacement planting.</p> <p>Remove tree ties, guards & stakes at year five or sooner once established.</p> <p>Inspect at every visit and report any requirements for remedial works to SSEN Transmission.</p>	1-5
Native Pine Woodland	<p>Check for INNS or noxious weeds at every site visit. If found remove by hand (where safe to do so). Spot treatment with herbicide if agreed by SSEN Transmission.</p> <p>Cut areas within 5 m of substation security fence, cutting 33% every three years. Check any stakes, ties, plant guards, refix / straighten / replace as required.</p> <p>Plant beds are to be cut twice annually to minimise competition to tree growth. All plant stations to be firmed up necessary.</p> <p>At each maintenance visit check each plant station and if growth is being impacted by ground fauna. If is being affected treat as weed growth and remove 0.5 m around each plant station as required.</p> <p>All plants that are missing or dead, or which are failing to make satisfactory growth.</p> <p>Apply slow release or similar fertiliser in March / April to all tree planting stations, at manufacturers recommended rate.</p> <p>Recommended minimum of three visits per year, with additional visit for replacement planting.</p> <p>Remove tree ties, guards & stakes at year five or sooner once established.</p> <p>Inspect at every visit and report any requirements for remedial works to SSEN Transmission.</p>	1-5
Existing Native Pine Woodland	<p>Inspect trees for health and disease and report any requirements for remedial works SSEN Transmission.</p> <p>Inspect trees for risk of falling that pose a threat to the security fencing / substation infrastructure and report any findings to SSEN Transmission for remedial actions.</p>	1-5
Blanket Bog	<p>Check for INNS or noxious weeds at every site visit. If found remove by hand (where safe to do so). Spot treatment with herbicide if agreed by SSEN Transmission.</p> <p>Any self-sown tree or shrub growth should be controlled to ground level by cutting and no growth to exceed 1.8 m in height.</p>	1-5

	Remove all arisings from cut areas. Inspect coir dam structures and repair as required. Inspect at every visit and report any requirements for remedial works to SSEN Transmission.	
Existing Watercourse or Waterbody	Ensure no blockages along watercourse which could lead to flooding. Control INNS and nuisance weeds by spot weeding, remove seed heads if risk of setting seed Inspect annually and report any requirements for remedial works to SSEN Transmission.	1-5
Drainage channel/ SUDs Pond	Ensure ditch is clear and functional. Control INNS and nuisance weeds by spot weeding, remove seed heads if risk of setting seed Inspect annually and report any requirements for remedial works to SSEN Transmission.	1-5

Schedule 2: Species Monitoring Prescriptions, Responsibilities and Work Schedule

[This section to be included in the LEMP if ongoing monitoring is required]

Landscape / Ecological feature	Monitoring prescription	Responsible	Required (years)	Date last undertaken	Actioned by
All planting	Achieved target height growth and coverage as per LVIA assumptions.	SSEN Transmission	5		

5.3 Maintenance and Management Years 6 to 10

The maintenance and management actions for each habitat / landscape element are designed to ensure that the objectives set out in **Section 3** fulfil biodiversity net gain requirements and / or meeting planning condition requirements.

Monitoring is required to check on the establishment of the landscape elements and progress towards achievement of their designed functions. Monitoring is also required of specific ecological mitigation items and, critically, for electrical safety and site security.

This section sets out the specific maintenance, management, and monitoring requirements for years 6 to 10 and assigns responsibilities where appropriate.

This section sets out the specific maintenance, management, and monitoring requirements for establishment years 6 to 10. **Schedule 3** sets out the operations and timescales. **Schedule 4** sets out the species monitoring prescriptions, responsibilities and work schedule. All works shall also meet the overarching requirements as set out in **Section 4**.

The following are general requirements of the landscape management and maintenance applicable to the lifespan of the finalised LEMP.

The Site shall be inspected at least once a year and a brief report submitted to the SSEN Project Manager setting out any issues observed on site, including but not limited to:

- any damage, compaction or excessive wear to grass areas;
- any damage or disease to tree and shrub areas;
- any tree or shrub growth that may provide a climbing aid to scale security fences or which intrudes into the CCTV visibility zone around the security fence;
- any trees considered at active risk of falling onto the security fence or into the live substation; and
- In all cases where issues are noted, a proposal for reinstatement / repair or remedial work shall be submitted.

Schedule 3: Landscape and Habitat Management Prescriptions, Responsibilities and Work Schedule

Landscape / habitat element	Management	Required (years)
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Heath/ Heather Moorland	<p>Check for INNS or noxious weeds at every site visit. If found remove by hand (where safe to do so). Spot treatment with herbicide if agreed by SSEN Transmission.</p> <p>Cut areas within 5 m of substation security fence, cutting 33% every three years. Beyond 5 m any self-sown tree or shrub growth should be controlled to ground level by cutting and no growth to exceed 1.8 m in height.</p> <p>Remove all arisings from cut areas.</p> <p>Inspect at every visit and report any requirements for remedial works to SSEN Transmission.</p>	6-10
Upland Birch Woodland	<p>Check for INNS or noxious weeds at every site visit. If found remove by hand (where safe to do so). Spot treatment with herbicide if agreed by SSEN Transmission.</p> <p>Cut areas within 5 m of substation security fence, cutting 33% every three years.</p> <p>Check growth and vigour, any trees not performing or where competition then selective removal / thinning of tree crop to be undertaken. Logs where appropriate can be used to create habitat piles in accordance with Section 4.</p> <p>Inspect at every visit and report any requirements for remedial works to SSEN Transmission.</p>	6-10
Native Pine Woodland	<p>Check for INNS or noxious weeds at every site visit. If found remove by hand (where safe to do so). Spot treatment with herbicide if agreed by SSEN.</p> <p>Cut areas within 5 m of substation security fence, cutting 33% every three years.</p> <p>Check growth and vigour, any trees not performing or where competition then selective removal / thinning of tree crop to be undertaken. Logs where appropriate can be used to create habitat piles in accordance with Section 4.</p> <p>Inspect at every visit and report any requirements for remedial works to SSEN Transmission.</p>	6-10
Existing Native Pine Woodland	<p>Inspect trees for health and disease and report any requirements for remedial works SSEN Transmission.</p> <p>Inspect trees for risk of falling that pose a threat to the security fencing / substation infrastructure and report any findings to SSEN Transmission for remedial actions.</p>	6-10
Blanket Bog	<p>Check for INNS or noxious weeds at every site visit. If found remove by hand (where safe to do so). Spot treatment with herbicide if agreed by SSEN Transmission.</p> <p>Any self-sown tree or shrub growth should be controlled to ground level by cutting and no growth to exceed 1.8 m in height.</p> <p>Remove all arisings from cut areas.</p> <p>Inspect coir dam structures and repair as required.</p> <p>Inspect at every visit and report any requirements for remedial works to SSEN Transmission.</p>	6-10
Existing Watercourse or Waterbody	<p>Ensure no blockages along watercourse which could lead to flooding.</p> <p>Control INNS and nuisance weeds by spot weeding, remove seed heads if risk of setting seed</p> <p>Inspect annually and report any requirements for remedial works to SSEN Transmission.</p>	6-10
Drainage Channel/ SuDS Pond	<p>Ensure ditch is clear and functional.</p> <p>Control INNS and nuisance weeds by spot weeding, remove seed heads if risk of setting seed</p> <p>Inspect annually and report any requirements for remedial works to SSEN Transmission.</p>	6-10

Schedule 4: Species Monitoring Prescriptions, Responsibilities and Work Schedule

[This section to be included in the LEMP if ongoing monitoring is required]

Landscape / Ecological feature	Monitoring prescription	Responsible	Required (years)	Date last undertaken	Action ed by
Woodland Planting	Achieved target height growth as per LVIA assumptions.	SSEN	15		

5.4 Maintenance and Management Year 11 onwards Long Term

This section sets out a rolling five-year programme for maintenance, management, and monitoring of the site in the long-term and assigns responsibilities where appropriate.

The maintenance and management actions for each habitat / landscape element are designed to ensure that the objectives set out in **Chapter 5** are achieved and to allow the successful establishment of a sustainable

healthy landscape, fulfilling the landscape, visual and ecological mitigation functions to which SSEN Transmission have committed and / or planning conditions require.

Monitoring is required to check on the establishment of the landscape elements and progress towards achievement of their designed functions. Monitoring is also required of specific ecological mitigation items and, critically, for electrical safety and site security.

Schedule 5 sets out the timeframe for landscape maintenance and management actions to be carried out by the contractor.

Schedule 5: Landscape and Habitat Management prescriptions, responsibilities and work schedule

Landscape / habitat element	Management
Heath/ Heather Moorland	Check for INNS or noxious weeds at every site visit. If found remove by hand (where safe to do so). Spot treatment with herbicide if agreed by SSEN Transmission. Cut areas within 5 m of substation security fence, cutting 33% every three years. Self-sown tree or shrub growth should be controlled to ground level by cutting and no growth to exceed 1.8 m in height. Remove all arisings from cut areas. Inspect at every visit and report any requirements for remedial works to SSEN Transmission.
Upland Birch Woodland	Inspect trees for health and disease and report any requirements for remedial works SSEN Transmission. Report on any thinning required. Inspect trees for risk of falling that pose a threat to the security fencing / substation infrastructure and report any findings to SSEN Transmission for remedial actions
Native Pine Woodland	Inspect trees for health and disease and report any requirements for remedial works SSEN Transmission. Report on any thinning required. Inspect trees for risk of falling that pose a threat to the security fencing / substation infrastructure and report any findings to SSEN Transmission for remedial actions
Existing Native Pine Woodland	Inspect trees for health and disease and report any requirements for remedial works SSEN Transmission. Report on any thinning required. Inspect trees for risk of falling that pose a threat to the security fencing / substation infrastructure and report any findings to SSEN Transmission for remedial actions.
Blanket Bog	Inspect at every visit and report any requirements for remedial works to SSEN Transmission.
Existing Watercourse or Waterbody	Ensure no blockages along watercourse which could lead to flooding. Inspect annually and report any requirements for remedial works to SSEN Transmission.
Drainage Channel/ SuDS Pond	Ensure ditch is clear and functional. Inspect annually and report any requirements for remedial works to SSEN Transmission.

APPENDIX A: PLANNING CONTEXT

[This section to be included in the LEMP if ongoing monitoring is required]

Planning Conditions

[Planning conditions to be summarised as relevant to landscape, ecology, forestry and BNG once permission is granted]

EIA / Appraisal Mitigation Commitments

[The landscape and ecological mitigation commitments relevant to the establishment, maintenance and management of the soft landscape estate and protected species can be moved from **Section 3.1** to this location once the detailed design has been completed.]

APPENDIX B: SCHEDULE OF LANDSCAPE, ECOLOGICAL MITIGATION AND BIODIVERSITY NET GAIN REQUIREMENTS

Table 2 provides a summary of those mitigation measures identified throughout the EIA Report. The following mitigation codes are used in this section:

- LV – Landscape and Visual Impact Assessment
- CC – Climate Change and Carbon Balance
- E – Ecology and Nature Conservation
- O - Ornithology
- F – Forestry
- GP - Geology and Peat
- HG – Hydrology and Hydrogeology
- TT - Traffic and Transport
- CH - Cultural Heritage
- NV - Noise and Vibration
- SE – Socio-Economic

Table 2 Schedule of Environmental Mitigation

Ref.	Mitigation	Timing
LV1	Existing trees and woodland to be retained will be protected and brought into positive management to promote screening of the Proposed Development.	Construction
LV2	New cut and fill slopes will be rounded off both top and bottom and generally shaped to create a naturalistic landform as far as possible, whilst minimising the loss of good quality trees.	Construction
LV3	Should circumstances arise during the construction works that require amendment to the platform level, any design development will consider the relationship between landform height, viewpoints at receptors, and site platform level, so that the screening effect described in the Volume 2 Chapter 5 Landscape and Visual Impact Assessment and provided on the application drawings is not reduced.	Pre-commencement and construction
LV4	All native species planting will be carried out using plant material of local provenance (the closest provenance that is available in commercial quantities) to ensure maximum benefit for local biodiversity.	Construction
LV5	Areas of new woodland consisting primarily of birch and pine will be planted in accordance with the Landscape and Ecological Mitigation Plan (Volume 3a Figure 5.4) to enhance screening and offset the loss of woodland trees.	Construction and operation
LV6	A Tree Protection Plan will be implemented prior to the commencement of construction to protect existing trees to be retained.	Pre-commencement and construction
LV7	Lighting of compounds and construction areas will be restricted to the minimum necessary for safe working and site security.	Construction
LV8	Materials and machinery will be stored tidily during the works. Tall machinery including cranes will not be left in place for longer than required for construction purposes, to minimise its impact in views.	Construction and operation
LV9	On completion of construction, all remaining construction materials will be removed from the site.	Operation
E1	Within the peatland restoration area best practice measures shall be maintained until a sustainable layer of vegetation has developed over the peat to prevent erosion. This shall be monitored through routine inspection to ensure pollution prevention measures are still functional and planting / seeding of the restoration areas is maturing.	Construction and operation
E2	It is proposed that losses of forestry to the Proposed Development will be subject to compensatory planting both as part of the designed landscape, replanting by the landowner and off-site compensatory planting.	Construction and operation
E3	Preconstruction surveys shall be undertaken (for all protected species) by a suitably qualified and experienced ecologist in order to update the baseline, inform appropriate mitigation measures and allow for protected species licencing to be sought, as appropriate.	Construction and operation

E4	Permanent woodland lost to the Proposed Development will be subject to compensatory planting as close to the area of loss as possible. Where possible compensatory planting will be situated in areas where there is connectivity to existing woodland. Temporary woodland loss will either be subject to replanting by the landowner in line with the existing forestry plan or by the Applicant in the form of mitigation planting.	Construction and operation.
E5	An Ecological Clerk of Works (ECoW) shall be in attendance for any tree felling or delimiting and will supervise soft felling as required. This shall extend to all protected species (and their place of shelter) at risk of disturbance / destruction or direct mortality, including but not limited to bats.	Pre-commencement and construction
E6	Timing works to avoid vegetation clearance and soil stripping during the period when reptiles may be hibernating (October – March inclusive) will minimise direct mortality. Where avoidance is not possible, mitigation measures will be deployed such as fencing to prevent reptiles (and amphibians) from moving into areas where they could be killed or injured. Staged strimming of areas earmarked for development / disturbance can minimise risks to reptiles (and amphibians) by making existing habitat less favourable.	Pre-commencement, construction and operation.
E7	Monitoring and maintenance of the habitats planted / reinstated will be necessary so they meet their target condition and will be undertaken in line with the Habitat Management Plan (Volume 4 Appendix 5.2 Outline Landscape and Ecological Management Plan).	Operation.
E8	During operation and maintenance of the proposed substation, substation building(s) may become occupied by roosting bats, the presence of bat roosts within substation buildings may constrain some routine maintenance works which may need to be undertaken under licence. Inspections of substation building(s) should be undertaken in advance of any maintenance works which may lead to the disturbance or damage of a bat roost or the killing of bats. Works should adhere to the bat SPP and be undertaken in line with Bat Conservation Trust (BCT) guidance.	Operation.
O1	Within the multi-disciplinary mitigation of peatland restoration (i.e., conversion of 142 Ha of former forestry area to wet peatland), creation of approximately two thirds (94 Ha) of the new habitat to a combination of dry heath, wet heath and blanket bog as functional hen harrier habitat.	Pre-commencement, Construction, Commissioning, Operations
O2	Management of the hen harrier habitat to retain it as a functionally operative area for foraging and potentially breeding. This management will comprise some / all of; tree seedling removal, grazing stock management (fencing), and hydrological management (ditch blocking / creation), and monitoring of species occupancy.	Construction, Operations
F1	Land use change from low yield class commercial conifer plantation to peatland restoration.	Construction, Operations
F2	Felling of a broader area of woodland surrounding the proposed substation will be replanted in line with Volume 3a Figure 5.4 (Landscape Ecological Mitigation Plan).	Construction, Operations
F3	Woodland loss for the permanent substation and associated infrastructure will be mitigated by the provision of 23.52 ha offsite compensatory planting.	Construction, Operations
GP1	Primary Mitigation: Construction on steep slopes that have deep peat deposits will be avoided. Avoid the loading of deep peat deposits. Infrastructure and tracks in areas of deep peat will be microsited. All works to be undertaken in compliance with the peat management plan.	Pre-commencement, Construction

GP2	Secondary Mitigation: Visual inspections to be completed where points of moderate risk have been recorded during construction during and for a period after and during heavy rainfall events to ensure slope stability. The use of floating tracks where track construction in areas of peat deeper than 1 m cannot be avoided.	Pre-commencement, Construction
GP3	Tertiary Mitigation: Micrositing infrastructure and tracks in areas of deep peat. The use of floating tracks where track construction in areas of peat deeper than 1 m cannot be avoided. The reuse of peat and topsoil that is removed during the construction process in other areas of the development.	Pre-commencement, Construction
TT1	<p>Development and implementation of a Construction Traffic Management Plan (CTMP) which would be agreed in consultation with Transport Scotland and the Highland Council and include but not be limited to;</p> <ul style="list-style-type: none"> • As far as reasonably possible, deliveries should be scheduled outside of school opening and closing times. Drivers of all delivery vehicles to be made aware during induction of the presence of the school and other amenities within the village; • Drivers to be reminded of the presence of 20 mph temporary speed restrictions on the main road outside of the school and that a strict adherence to these speed limits is expected; • Delivery times will be scheduled to ensure that deliveries do not arrive in a convoy; • Timing of the deliveries will be outlined within the CTMP to ensure construction vehicles avoid potentially congested networks at peak hours; • Where it is reasonably practicable, HGV deliveries to the Proposed Development will be suspended during local community events where increased traffic or parking requirements may be reasonably anticipated; • Temporary construction phase signage would be erected on the approved route to Site to warn people of construction activities and associated construction vehicles. Road user safety (including non-motorised users) will be enhanced via the installation of signage and the maintenance of sight lines; and • Appropriate parking facilities will be provided for construction workers. Under no circumstances will HGVs be allowed to lay-up in surrounding roads. 	Pre-commencement, Construction
CH1	Monitoring of vehicle movements prior to established traversal corridors, to prevent disturbance / destruction of known and unknown archaeological remains.	Pre-commencement, Construction
CH2	Avoidance, demarcation and barricading of known features in close proximity to Proposed Development.	Pre-commencement, Construction
CH3	All ground disturbance work to be monitored by archaeological watching brief. To be undertaken by suitably qualified archaeologist to identify, record and excavate, in whole or in part, features exposed by construction works and associated mitigation activities.	Pre-commencement, Construction