



## **Welkin Mill, Bredury**

# **30 year Landscape & Ecology Management Plan**

**Prepared on behalf of Noriker Power Ltd**

**by DEP Landscape Architecture Ltd**

***Revision B: March 2024***

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## **APPENDIX A**

*The appointed landscape contractor's risk assessment should be kept in Appendix A in accordance with section 2.1 for reference by any contractors working on the site.*

This report should be read in conjunction with the following drawings and documents:

5305-01A Landscape Layout  
Biodiversity Impact Assessment by Rachel Hacking Ecology

*Author Tim Rogers*

## **1.0 Introduction and General Description**

This report has been compiled on behalf of Noriker Power Ltd to provide information for the habitat and landscape maintenance and management requirements for the site at Welkin Mill, Bredbury, Stockport, for a minimum of 30 years.

This plan has been prepared to discharge Planning Condition no 9 of Planning Application no DC/087394 and to ensure that the landscape is maintained in a manner which protects and enhances existing wildlife habitats and promotes the biodiversity value of the site. The landscape will also screen/filter views of the development, contributing to the visual amenity of the local area.

This plan has been prepared by Tim Rogers, a qualified and chartered Landscape Architect with a BA Honours Degree and Diploma in Landscape Architecture. Input relating to ecology and wildlife habitats has been provided by Rachel Hacking Ecology.

The development is a battery energy storage system (BESS) site, comprising battery racks, inverters, transformers and other electrical plant equipment connected via an underground ducted cable to Electricity North West's distribution network at the Vernon Park Substation. The development is accessed via secure gates off Welkin Road and is enclosed by 2.4m height secure steel fencing, with screening mesh and 6m height ball stop fencing/netting along the western boundary where it adjoins playing fields. A permeable gravel access track runs from the southern entrance to the north end of the site. The electrical installations are set on concrete hardstandings, with surrounding areas surfaced in permeable consolidated stone.

The soft landscaped areas comprise wildflower grassland, native scrub planting and climbing plants (on the boundary fencing). These have been planted to contribute to the visual amenity and habitat diversity around the site. Such areas also provide foraging habitat for a variety of wildlife such as birds and bats.

Existing trees and scrub areas adjacent to the western boundary are being retained. These features will be protected during the construction phase of the development in accordance with the Arboricultural Impact Assessment, Method Statement and Tree Protection Plan produced by Tree Solutions Ltd (October 2022).

An Extended Phase I Habitat Survey was undertaken by Rachel Hacking Ecology (October 2019) which established that the dominant habitat on site is semi-improved grassland. This habitat is of low ecological value, it provides a limited source of pollen and cover from predation. The bands of scrub, tall ruderal herb and trees are the most ecologically value habitat offering cover from predation, foraging and commuting opportunities and providing a limited pollen source for invertebrates. The bare ground and ephemeral vegetation offer little ecological value. The scrub, trees and spoil on site also offer suitable nesting habitat for birds.

Most of the habitats on site are of poor or low ecological value and are well-represented in the land surrounding the site. No evidence of protected species was found. The site supports suitable nesting habitat for birds.

If any work to the trees, scrub or spoil will proceed within the bird nesting season (which is generally March-August), then a nesting bird check will be required immediately prior to any work.

Nesting birds can be somewhat mitigated for by allowing no works to be carried out to suitable nesting habitat within the bird nesting season.

A Biodiversity Impact Assessment was also produced by Rachel Hacking Ecology (March 2023) which identified options to mitigate loss of habitats. Habitat Creation Option 3 was approved under Planning Application no DC/087394. This comprises the planting of climbers to the boundary fencing and sowing of wildflower grassland over part of the site. In addition, the planning approval (Condition no 11) identified a requirement for 8no insect hotels to be located around the site perimeter fencing.

This LEMP outlines the management and maintenance required.

## **2.0 Proposals and Objectives**

The overall objective of this report is to promote a successful landscape to enhance the environment around the site for the benefit of wildlife, species diversity, local landscape character and visual amenity. This management plan will ensure that the landscaping is implemented, established and maintained as the design intended and will provide 30 year maintenance objectives for all landscaped elements within the scheme as a whole.

The persons or companies responsible for maintaining the landscape will also be responsible for carrying out a review of the landscape management plan after a 5 year period, to ascertain any changes on site and to provide updated maintenance regimes as the landscape matures.

After this time it would be appropriate to review this plan every 3-5 years to ensure that the management objectives and maintenance regimes responds to any changes on site and within the environment.

The main objectives for the maintenance of the landscape include the following:

- Maintain existing trees, hedges and vegetation around the site to preserve the character of the landscape and local wildlife habitats.
- Establish new, climbers/shrubs and vegetation around the site to reinforce the landscape structure, define site boundaries and establish wildlife corridors and foraging habitat.
- Establish new climbers/shrubs to promote species and structural diversity, improve visual amenity and contribute to the landscape character to help integrate the site into the local landscape.
- Establish wildflower grassland for the benefit of the local wildlife and habitat and species diversity.
- Provide and maintain additional habitat for invertebrates, through the introduction of insect houses.

## **2.1 Health and Safety**

The following potential hazards have been identified during maintenance operations;

- Contractors working on the site should make themselves aware of the location of any underground or over ground services and cables.
- Working in areas close to roads, footpaths, recreation areas and the general public; consideration must be given to vehicular and pedestrian users.
- The use of chemicals known to be hazardous to humans and animals; the contractor must also be aware of the limitations using of certain chemicals in areas close to a water course.
- Lifting heavy objects and working with heavy machinery.
- The possibility that hazardous material may be deposited in or inadvertently left in areas requiring clearing i.e. needles, dog faeces and fly tipping.
- Works to existing trees, including the use of chainsaws/machinery, climbing heights, falling branches.

Methods for reducing the potential site risks are well established and are common practice for competent contractors. The contractor is expected to identify all hazards associated with any maintenance operations proposed, together with an assessment of the risks involved and methods for reducing the risks.

A copy of the Risk Assessment should be recorded and retained at the back of this report for reference by all contractors working on site. This assessment should be reviewed annually to respond to any changes on site.

## **2.2 Site Operations and Responsibilities**

All operations described within this document relate to the landscaped areas (outside of private curtilage and highways) that fall under the responsibility of the Landscape Management Company which will be set up/commissioned as part of the approved development.

All areas within private curtilage will be the responsibility of the individual landowner. All areas within adopted highway will be the responsibility of Stockport Metropolitan Borough Council.

The Landscape Management Company is responsible for employing suitably qualified Landscape Maintenance Contractors to carry out all operations as listed in this report and obtaining advice from a suitably qualified Ecologist if necessary in matters relating to ecology/wildlife/habitats.

All operations on site are to be carried out by qualified operatives with appropriate safety clothing. The appointed Landscape Maintenance Contractor and any sub-contractors are to adhere to the latest guidance on safe working practice, including information from the recognised industry body, the Local Authority and the government Health and Safety Executive.

The maintenance contractor is to carry out all operations with regards the safety and welfare of the general public, private and public property, domestic and native flora and fauna and statutory services including the Environment Agency.

### **2.3 Implementation of the Management Plan**

This plan sets out a framework for the management of the site. It includes detailed prescriptions of all maintenance requirements over the next 30 years with annual work schedules which look to quantify the frequencies and timings of these works. It also provides important information on the protection of wildlife and provides a structure in place for the proactive management and preservation of the landscape and wildlife habitats.

A management company will be set up/commissioned by Noriker Power Ltd, this company will take on all maintenance and monitoring responsibilities from Noriker Power Ltd once the site has been handed over at the end of the development.

After 5 years the plan would be reviewed by Noriker Power Ltd, the management company, a Landscape Architect and an Ecologist. The maintenance requirements and work schedules would be updated to respond to any changes on site. Following this the plan should be reviewed every 3-5 years to ensure the long term success of the landscape.

In addition at the end of the year Noriker Power Ltd would produce an annual Landscape Strategy following a review of the weekly, monthly and annual inspections and with consultation with a Landscape Architect and Ecologist. This would ensure that appropriate management options for achieving aims and objectives and target habitat conditions are implemented and the site is actively maintained and ecological trends and constraints on site that might influence management are identified.

The habitats onsite will continue to be managed in order to maximise wildlife interest for the duration of the management plan, for example through the maintenance of the grassland mowing regimes to encourage species diversity and through careful timing of pruning and plant management works to avoid nesting bird season.

### **2.4 Disposal of materials from site**

All, rubbish, leaves, grass and general arisings removed from the site are to be deposited of in a local licensed tip in the relevant waste section unless otherwise directed in this document.

In some cases arisings and materials from tree maintenance works can be used to create habitat for wildlife for example creating log piles within the wildlife corridor.

### **3.0 Landscape Maintenance Soft Works**

#### **3.1 Existing Trees and Scrub**

This applies to the existing trees and scrub which are located on the site perimeters and have been retained in order to preserve the habitat opportunities they provide for local wildlife. These trees were originally surveyed by Tree Solutions Ltd in October 2022. This report presumes that all works have been carried out in accordance with the tree work and ecological recommendations.

##### Objectives

Promote the longevity of the existing trees and scrub corridors so that they continue to provide wildlife habitats and commuting routes around the site and ensure that they are maintained in a safe condition.

##### Inspections

The existing trees and scrub corridors should be inspected annually by a suitably qualified Arboriculturalist to ensure that they do not pose a health and safety risk. Further inspections may also be required following severe winds and storms, or following a report by the public.

##### Maintenance Operations

Routine pruning should only be carried out on trees/scrub areas which are close to publicly accessible areas (i.e. could fall or drop branches on surrounding paths, roads or properties) or impede the maintenance of fencing, buildings or street lighting. These should include;

The removal of dead, diseased, damaged or dying branches only where they pose a risk to the safety of the users of the site. Dead wood is an important habitat for wildlife within a healthy ecosystem and should not be removed unnecessarily.

Remove young natural colonisation, poorly formed or young low value trees where they are impeding the growth of the more desirable individual trees.

Any pruning or surgery to existing trees/scrub must maintain the natural shape of the tree, and if trees are to be felled this operation should be done in a safe manner by suitably qualified Arboriculturalist. They must consider all safety implications and works should be in accordance with BS 3998 2010 and current wildlife legislation for the protection of bats and nesting birds. A suitably qualified Ecologist should be contacted if necessary.

Report and or treat any incidence of pests and diseases.

Once a month carry out a litter pick or remove any fly tipping which has collected around the base of the existing vegetation. Leaf litter underneath trees and hedgerows should be retained as this will provide valuable habitat for wildlife.

#### **3.2 Proposed Native and Ornamental Shrubs/Climbers**

##### Objectives

Promote the establishment of healthy plants to provide valuable wildlife habitats, increase species and structural diversity and provide interest around the site.



The climbers are trained onto the boundary fencing and should be maintained to promote healthy growth and ensure they achieve species potential in terms of coverage, texture, form and flower.

#### Inspections

Inspect the plants annually when they are in fully leaf to ensure that they are thriving and record defects requiring remedial works.

#### Maintenance Operations

Adjust canes as required to ensure climbers are trained onto fencing.

Lightly dig over the surface of the shrubs beds using a hoe, look to uproot and remove all weeds from the beds. For the more prolific or deep rooted weeds spot treat with a glyphosate based weed killer and remove once it has died back.

After 3-5 years or after the climbers have established on the fencing this should not be necessary and the ground flora underneath should be allowed to establish naturally as this will provide valuable habitat for local wildlife.

If they show signs of poor growth or reduced vigour an application of the appropriate fertiliser should be carried out. Any failed plants should be replaced to the original specification.

During establishment plants may require regular watering particularly during prolonged dry periods during the summer months. These areas should be watered if there has been a period of dry weather for 2 weeks or more between June to September in the first growing season.

Pruning of young plants should not generally be required unless they have dead or diseased branches. In such cases the branch should be pruned back (using a sharp clean knife) to an outward facing bud whilst maintaining the natural shape. Pruning should be undertaken outside of the breeding bird season (March - August).

If plants are showing signs of poor growth, disease or die back which is affecting the overall appearance of the shrub bed then identify the problem and carry out the appropriate treatment.

Remove litter that has collected in the shrubs as part of the general maintenance operations in the wider landscape.

### **3.3 Proposed Meadow**

A native wildflower/grass mix has been sown over part of the site, this is Emorsgate EM2 which is a standard general purpose meadow, which contains species that are characteristic of traditional meadows across a wide range of soil types.

#### Objectives

The meadows will provide different habitat types for local flora and fauna and a food source for insects, bats and birds. It will also provide seasonal interest across the site.

#### Inspections

Inspect the wildflower meadow area annually in the summer to determine the success of establishment and record species to determine future management to ensure species rich diversity is maintained. Consult a qualified Ecologist if necessary.

### Maintenance Operations – Year One

The requirements in the first year is to control weeds and reduce competition from the more prolific grass species to allow the less competitive species to become established.

Carry out a litter pick and remove any debris before each cut.

Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds, arising from the soil seed bank. These weeds can look unsightly, but they will offer shelter to the sown seedlings, are good for invertebrates, and they will die before the year is out. So resist cutting the annual weeds until mid to late summer, especially if the mixture contains Yellow Rattle, or has been sown with a nurse of cornfield annuals. Then cut, remove and compost. Early August is a good time. This will reveal the young meadow, which can then be kept short by mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks.

Vegetation should be left in situ for 1-2 days to allow any invertebrates to escape, after which arisings should be collected and disposed of in a licensed tip.

Avoid strimming directly around newly established shrubs and trees to prevent bark wounds and damage to the plants.

### Maintenance Operations – Year Two and Subsequent Years

Carry out a litter pick and remove any debris before each cut.

In the second and subsequent years EM2 sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing.

Meadow grassland is not cut from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a scythe, petrol strimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site.

Mow the re-growth through to late autumn/winter to c 50mm and again in spring if needed.

## **3.4 Additional Wildlife Considerations**

The site, particularly its boundary features, provides habitat for a number of species including bats, birds and invertebrates.

### Objectives

This plan seeks to maintain and enhance this habitat and increase the provision for wildlife on site.

### Bats

Planting and wildflower meadow provide foraging opportunities for bats.

Consideration should be given to the possibility of bats being present within mature and semi-mature trees prior to maintenance works being carried out. A suitably qualified Ecologist should be consulted if necessary.

#### Birds

Planting and wildflower meadow provide foraging opportunities for birds.

Consideration should be given to the possibility of birds nesting within mature and semi-mature trees prior to maintenance works being carried out. A suitably qualified ecologist should be consulted if necessary.

Maintenance works to trees and scrub should not be carried out within the breeding bird season (March - August).

#### Invertebrates

Insect houses are located on the boundary fencing (8no in total). These should be inspected annually to ensure that they are secure and in good condition.

## **4.0 Landscape Maintenance Hard Works**

### **4.1 Proposed Access Road**

An access road runs through the site to provide access to equipment.

#### Objectives

Maintain the road in a good state of repair to provide a safe surface which is free from any ruts and trip hazards.

#### Inspections

A visual inspection is to be carried out by the maintenance contractor at 6 monthly intervals. Report of the inspection should be logged.

#### Maintenance Operations

Surfaces are to be kept free of litter, mud, arisings, deleterious material and hazardous obstructions. Surfaces are to be uniform in appearance, a level surface and constructed from a homogenous material, free from large ruts, hollows and pot-holes.

Surfaces should be cleared of weeds by spot treating with an application of a non-residual based herbicide up to three times a year.

Remove litter and any other detritus material and arising from the road to maintain it in a safe and clean state free from any obstructions.

### **4.2 Proposed Gates, Fencing and Netting**

2.4m height steel mesh security fencing is located around the site boundary (with matching gates at access points). 2.0m height tennis court surround mesh is attached to the fencing along the western boundary. 6.0m o/a height ball stop netting is located on the fencing along the western boundary.

#### Objectives

The gates, fencing and netting should be maintained to a high standard. These should be in good working order, look clean and have a homogenous surface finish as unsightly boundaries are a distracting feature to the site.

#### Inspections

The Landscape Contractor should inspect the boundaries during general maintenance operations and carry out remedial works within the scope of the maintenance operations as listed below.

#### Maintenance Operations

The gates, fencing and netting are to be kept free of litter, deleterious material and hazardous protuberances.

Surfaces are to be maintained uniform in appearance and coated in a homogenous paint, stain, enamel, or plastic coating. If faults or potential hazards are identified they should be repaired in accordance with the original specification.

If the fault presents a health and safety or security risk (i.e. the gate will not lock) the Landscape Contractor should make the site secure until the repair has been completed.

## **5.0 Annual Work Schedules**

## 5.0 MAINTENANCE SCHEDULES

	J	F	M	A	M	J	J	A	S	O	N	D	Total	Years (1-30)	Responsibility	Comments/Notes/Prerequisites
<b>5.1 EXISTING TREES &amp; SCRUB</b>																
Annual arboricultural inspection of trees		1											1	1-30	Arborist	Arrange for any remedial work to be done immediately only where they pose a risk to users of the site or property; works to include dead wooding, felling dangerous trees.
Schedule a health and safety arboricultural inspection after strong winds or storms														1-30	Arborist	As required.
Treatment of pests and diseases and/or removal of diseased trees													1	1-30	Arborist	As required and advised by arborist. All felling to be carried out in accord with BS3998, felling outside bird breeding season.
Removal of saplings and suckers, poorly formed or young low value trees. *		1											1	1-30	Arborist	Remove where they are impeding the growth of more desirable specimens
Litter pick around the existing trees.	1	1	1	1	1	1	1	1	1	1	1	1	12	1-30	Appointed contractor	Disposal in a licensed tip.
<b>5.2 PROPOSED NATIVE/ ORNAMENTAL CLIMBERS</b>																
Annual inspection to check shrub plants						1							1	1-30	Appointed contractor	Record defects requiring remedial works.
Pruning				1				1				1	3	3-5	Contractor	Pruning should generally not be required in the first 3 years of establishment. After which only prune back where they cause any obstruction or obscure sight lines. Maintain the natural shape of the plant. Cut back any dead, diseased or dying branches to stimulate new growth. For specific maintenance requirements of climbers please refer to section 3.2.
Weeding				1	1	1	1	1	1	1			7	1-30	Contractor	Lightly dig over the surface of the beds to remove weeds. Spot treat with glyphosate for prolific weeds only.

	J	F	M	A	M	J	J	A	S	O	N	D	Total	Years (1-30)	Responsibility	Comments/Notes/Prerequisites
Litter pick	1	1	1	1	1	1	1	1	1	1	1	1	12	1-30	Contractor	Remove any litter which has accumulated in the shrub beds.
Watering					2	2	2	2					8	1	Contractor	Water beds during the first growing season in the first year of establishment when there have been periods of no rainfall for a week or more until the soil is fully saturated.
<b>5.3 PROPOSED MEADOW (EM2 MIX)</b>																
Litter pick	1	1	1	1	1	1	1	1	1	1	1	1	12	1-30	Appointed contractor	Carry out a litter pick prior to strimming and once a month. Check debris for wildlife before disposing in licensed tip.
Establishment - Cutting			1					1					2	2	Appointed contractor	Cut sward to 50mm once, in mid-late summer in the first year, mow by end of March the following year
Maintenance - Cutting			1					1			1		3	2-30	Appointed contractor	Cut in late July-Aug once the flowers have set seed to 50mm. Cut again in late autumn/winter and again in spring if required.
Remove arisings from site			1					1			1		3	1-30	Appointed contractor	In all cases allow the arising to remain on site for 3-7 days before disposing in a licensed tip.
Remove self-seeded trees, woody vegetation.									1				1	1-30	Appointed contractor	Cut or pull out any self-seeded trees and strim back any bramble or woody vegetation. Dispose of appropriately.
Re-instatement of meadow mix														1-30	Appointed contractor	As required where areas have failed and in accordance with previously applied mix.
Watering														1	Appointed contractor	As required in periods of drought during the first year of establishment
<b>5.4 PROPOSED NATIVE SHRUB MIX</b>																
Annual inspection to check native shrubs						1							1	1-5	Appointed contractor	Record defects requiring remedial works.



	J	F	M	A	M	J	J	A	S	O	N	D	Total	Years (1-30)	Responsibility	Comments/Notes/Prerequisites
Trimming			1										1	1-5	Contractor	Trim side of the hedge to promote dense bushy growth, avoid the bird nest season
Check Plants			1						1				2	1-5	Contractor	Check plants, if they are loose or uprooted then heal them back in
Check Ties and guards			1						1				2	1-5	Contractor	Check ties and guards and re-secure or re-place if loose or missing. Once the plants have established then remove.
Weeding			1						1				2	1-3	Contractor	During establishment period treat the base of each shrub with a non-residual based herbicide for the first 3 years to remove weeds and aid establishment. Year 4 onwards allow ground flora and grasses to establish naturally around the shrubs for the benefit of wildlife.
Cutting		1											1	3-5	Contractor	Starting in year 5 locally coppice or thin shrubs to prevent overcrowding and promote healthy growth. Carry out only every 2-3 years on a rotational basis to promote wildlife. Cut outside of the bird nesting season
Watering					2	2	2	2					8	1	Appointed contractor	Water hedges during the first growing season in the first year of establishment when there have been periods of no rainfall for a week or more until the soil is fully saturated.
Litter pick	1	1	1	1	1	1	1	1	1	1	1	1	12	1-5	Contractor	Remove litter or debris that has collected around the shrubs and dispose of in a licensed tip.
<b>5.5 ADDITIONAL WILDLIFE CONSIDERATIONS</b>																
Inspect Insect Houses			1										1	1-30	Appointed contractor	Inspect annually to ensure insect houses are secure and in good condition.
Monitor Insect Houses									1				1	3	Ecologist	Monitor in year 3 and relocate if not been used.

	J	F	M	A	M	J	J	A	S	O	N	D	Total	Years (1-30)	Responsibility	Comments/Notes/Prerequisites
Works to trees in relation to the presence of bats.													1	1-30	Appointed contractor	Consideration should be given to bat presence when carrying out works to trees. Consult an ecologist if in doubt.
Works to trees in relation to the presence of birds.													1	1-5	Appointed contractor	Consideration should be given to nesting birds when carrying out works to trees and established shrubs. Consult an ecologist if in doubt.

<b>5.6 ACCESS ROAD</b>																
Inspection of road and carry out the repairs as necessary.													2	1-5	Appointed contractor	Inspect road and repair as required in line with the original specification.
Weed control													2	1-5	Appointed contractor	Control weeds on the road by spot treatment or spraying with a non-residual based herbicide (to be approved by the ecologists).
Litter pick													12	1-5	Appointed contractor	Remove litter or debris that has collected on the road and dispose of in a licensed tip.
<b>5.7 GATES, FENCING &amp; NETTING</b>																
Inspection of gates, fencing and netting and carry out the repairs as necessary.													2	1-5	Appointed contractor	Inspect gates, fencing and netting and repair as required in line with the original specification.
Litter pick													12	1-5	Appointed contractor	Remove litter or debris that has collected on the fencing and dispose of in a licensed tip.

**APPENDIX A**  
**(Contractor's Risk Assessment)**