

Appendix B.9 Landscape and Ecological Management Plan



Introduction

- 7.9.1 Stantec was commissioned by The Applicant to undertake a Landscape and Visual Impact Assessment (LVIA) as a technical chapter within an Environmental Statement to accompany a planning application for a proposed solar energy farm ('the Proposed Development') on land at Cefn Meiriadog, St Asaph ('the Site'), within the administrative area of Denbighshire County Council.
- 7.9.2 This Landscape and Ecological Management Plan (LEMP) has subsequently been prepared by Stantec, in collaboration with SLR Consulting, to provide a long-term landscape management and maintenance approach for the implementation and long-term after-care of landscape aspects for the Proposed Development, as well as to set out the measures that shall be taken to protect/safeguard ecological receptors during construction/installation.
- 7.9.3 The LVIA is supported by **Figure 7.7: Landscape Strategy Plan (LSP)**. The LSP includes existing trees and hedgerows, and details of all proposed planting, including species, sizes and numbers.
- 7.9.4 This LEMP is accompanied by **Figure 7.9: Landscape Management Zones Plan (LMZ Plan)**. The LMZ Plan sets out the broad management zones and components on which the structure of this document is based.
- 7.9.5 This LEMP is intended to satisfy the intent of Regulation 9 of The Conservation of Habitats and Species Regulations 2017 which were designed to seek the compliance with the relevant European Directives through the functions of an authority competent in habitats conservation management.
- 7.9.6 SLR Consulting (SLR) was commissioned to produce an Ecological Impact Assessment (EclA), for the Proposed Development. In the production of this LEMP, input has been received from ecological consultancy SLR to ensure appropriate reference to existing species and habitats and mitigation measures has been included. The EclA was completed in 2025 and accompanies the planning application.
- 7.9.7 In addition, reference has been made to the Natural Environment and Rural Communities (NERC) Act 2006, Section 41 Species and Habitats of Principal Importance and the Lowland Derbyshire Biodiversity Action Plan 2011 to 2020. UK BAP priority habitats and species are no longer accountable at a UK level following publication of the Natural Environment White Paper in 2011. However, the Biodiversity 2020 strategy (which succeeds the UK BAP in England) aims to achieve protection and enhancement of priority species and habitats (now referred to as species and habitats of principal importance) listed under Section 41 of the NERC Act.
- 7.9.8 Extracts from relevant planning policy and published evidence are set out in **Appendix 7.1: Policy and Guidance Extracts** and **Appendix 7.2: Published Evidence Extracts** of the ES Chapter 7.



Scope

- 7.9.9 The aim of this LEMP is to promote a sensitive management approach that protects, manages and enhances the Site for the benefit of habitats, landscape character and visual amenity in the long-term, and which protects/safeguards it during construction/installation works.
- 7.9.10 This document provides a strategy for overall management and maintenance of the landscape features of the Proposed Development, including existing features, hard and soft landscape proposals and newly created habitats including native trees, shrubs, hedgerows, grassland and marginal planting.
- 7.9.11 The LEMP has been prepared to provide an integrated approach to the management of the landscape, ecology and amenities associated with the Proposed Development. It is a dynamic document that will be renewed on a regular basis to ensure it remains fit for purpose.
- 7.9.12 This LEMP has been prepared to cover a period of 20 years from the first year of operation of the Proposed Development.
- 7.9.13 The structure of this LEMP is as follows:
- **Section 7.9.3** describes the existing fauna and flora present in and around the Site, including key species;
 - **Section 7.9.4** sets out the vision, aims and objectives;
 - **Section 7.9.5** describes the Landscape Management Components and their associated maintenance tasks;
 - **Section 7.9.6** describes the general maintenance and management tasks;
 - **Section 7.9.7** outlines the arrangements for management responsibilities and the recommendations for the monitoring and review of the LEMP; and
 - **Section 7.9.8** sets all maintenance tasks out in annual maintenance schedules for the plan period.



Existing Landscape and Ecology

- 7.9.14 The existing landscape of the Site is described in **Section 7.5 Baseline Conditions** of the **ES Chapter 7**.
- 7.9.15 This LEMP draws on ecological survey and desk study information set out in the EclA prepared by SLR for the Proposed Development. The following section of the LEMP summarises the key information set out in the EclA.

Statutory and Non-Statutory Ecological Designations

- 7.9.16 The Site itself does not include any statutory or non-statutory designated ecological sites, although there are two sites (covering the same geographical area) within 2km of the Solar Site, as set out in **Table 3.1**.

Table 3.1: Statutory Ecological Sites within 2km of the Solar Site

Site Name	Distance from Site
Coedwigoedd Dyffryn Elwy / Elwy Valley Woods Special Area of Conservation (SAC)	865m south-west
Coedydd ac Ogofau Elwy a Meirchion Site of Special Scientific Interest (SSSI)	865m south-west

- 7.9.17 The EclA states that no direct or indirect impacts are predicted on any of the statutory designed sites in relation to the Proposed Development, and as such they are not considered further in the EclA.
- 7.9.18 Several non-statutory designated ecological site have been identified within 2km of the Solar Site, as set out in **Table 3.2**.

Table 3.2: Non-Statutory Ecological Sites within 2km of the Solar Site

Site Name	Distance from Site
Ty'n-y-Coed Rough Wildlife Sites for Denbighshire	Partly adjacent to the eastern boundary of the eastern parcel
Glascoed Wildlife Sites for Denbighshire	Partly adjacent to the southern boundary of the eastern parcel
Coed Cord / Coed y Saeson Wildlife Sites for Denbighshire	123m north-west
Coed Fron and Eryl Hall Wood Wildlife Sites for Denbighshire	322m north-east
Gwynt-y-Mor Wild Ground Nature Reserve	416m north-west
Bryn Meiriadog Wildlife Sites for Denbighshire	431m west
Coed Kendrick Wildlife Sites for Denbighshire	631m south
Coed yr Accar Wildlife Sites for Denbighshire	737m south-west
Chapel Wood/Coed Mawr Wildlife Sites for Denbighshire	1028m south-east
Glascoed Wild Ground Nature Reserve	1267m north-west



Site Name	Distance from Site
Rickfield Wood/Coed Ddol Fawr/Coed Llanddol/Maes Elwy Covert (R Elwy Woods) Wildlife Sites for Denbighshire	1329m south-east
Coed Bont Newydd Wildlife Sites for Conwy	1556m south-west
Coed Nant-y-graig Wildlife Sites for Conwy	1614m south-west
Coed y Ddol/Coed y Fadir Wildlife Sites for Denbighshire	1649m west
Pwllau Graig Wildlife Sites for Conwy	1653m south-west
Mount Road Churchyard, St Asaph Wildlife Sites for Denbighshire	1774m north-east
Coed Pont y Trap Wildlife Sites for Conwy	1916m south
Pwllau Coed y Dafarn Wildlife Sites for Conwy	1973m south-west
Nany Meirchion Field Wildlife Sites for Denbighshire	1976m south

- 7.9.19 Of these, the EclA states that the Ty'n-y-Coed Rough and Glascoed Wildlife Sites for Denbighshire lie immediately adjacent to Site, and as such they are considered further in the EclA. None of the other non-statutory ecological sites are considered further in the EclA, since their distances from the Site and the nature of the Proposed Development are such that it is highly unlikely that any negative impacts will occur.

Ancient Woodland

- 7.9.20 Several areas of ancient woodland occur within 2km of the Solar Site, including two which occur immediately adjacent to its boundary, as set out in **Table 3.3**.

Table 3.3: Ancient Woodland Adjacent to the Solar Site

Site Name	Distance from Site
Pig-y-fran Plantation on Ancient Woodland Site (AWS)	Partly adjacent to the western boundary of the eastern parcel
Tyn-y-coed Rough Restored AWS	Partly adjacent to the north-eastern boundary of the eastern parcel

- 7.9.21 Both AWSs adjacent to the Site are considered further in the EclA. The other areas of ancient woodland are sufficiently distant not to be impacted, and as such they are not considered further in the EclA.

Priority Habitats (Section 7 Environment (Wales) Act)

- 7.9.22 The data received by Cofnod found no priority habitats recorded within the Site itself. Several were listed within 2km of the Solar Site. None of these are considered further in the EclA, since their distances from the Site and the nature of the Proposed Development are such that it is highly unlikely that any negative impacts will occur.
- 7.9.23 The UK Habitat Classification survey, however, did record priority habitats within the Solar Site, as listed under Section 7 of the Environment (Wales) Act 2016, as set out in **Table 3.4**.



Table 3.4: UK Habitat Classification Priority Habitats Within the Solar Site

UK Priority Habitat	Considered Further in the EclA
Native Hedgerow	Yes
Other Lowland Mixed Woodland	Yes
Other Standing Water – Ponds	Yes
Other Rivers and Streams	Yes

Habitats

- 7.9.24 The location and extent of surveyed habitats and ecological features are indicated on **Figure 1: Baseline Habitats** within **Appendix H** of the EclA. The habitats or ecological features found within or adjacent to the Site are set out in **Table 3.5**.

Table 3.5: Habitats Within and Adjacent to the Solar Site

Habitat Type	Considered Further in the EclA
Other Lowland Mixed Deciduous Woodland (w1f7)	Yes
Other Rivers and Streams (r2b)	Yes
Other Standing Water (r1g)	Yes
Modified Grassland (g4)	No – common non-priority habitat of less than local importance
Mature Trees (secondary code 203)	No – all individual trees are to be retained as part of the Proposed Development
Other Neutral Grassland (g3c)	No – common non-priority habitat of less than local importance
Native Hedgerow (h2a)	Yes
Ditches (secondary code 50)	Yes
Line of Trees (w1, 33)	No – the line of trees is to be retained as part of the Proposed Development
Urban – Other Developed Land (u1b6 839 track or 800 road)	No – not of ecological value
Urban – Artificial Unvegetated – Unsealed Surface (u1c)	No – not of ecological value
Built Linear Features (u1e 612 fence)	No – of insignificant ecological value

Protected and Notable Species

- 7.9.25 The species or species types recorded within 2km of the Site are set out in **Table 3.6**.



Table 3.6: Species or Species Type Within 2km of the Solar Site

Species or Species Type	Considered Further in the EcIA
Notable Plant Species	Considered alongside the wider priority habitat type
Invasive Non-Native Species	No – records do not relate to the Site itself and no non-native invasive species were recorded within the Site during surveys
Invertebrates	No – records do not relate to the Site itself and habitats within the Site are unlikely to support a locally significant population
Fish	No – freshwater habitats within the Site are unlikely to support any notable fish species
Amphibians including Great Crested Newt	Yes
Reptiles	No – the dominant habitat is generally unsuitable for reptiles and this group is considered unlikely to occur
Wintering Birds	No – the population of wintering birds with the Site is of less than local importance
Breeding Birds	Yes
Bats	Yes
Badgers	Yes
Otters	No – low likelihood of otters being present
Water Voles	Yes
Hazel Dormouse	Yes
Other Mammals	No – the Site is not considered to be of value to these species, and/ or impacts upon them are not considered to be significant

EcIA Recommendations

7.9.26 The EcIA includes reference to the mitigation measures and proposed biodiversity enhancements set out below. These mitigation measures have informed the landscape strategy set out in the landscape and visual ES chapter and in **Figure 7.7: Landscape Strategy Plan**.

- Hedgerows will be retained wherever practicable. New hedgerow is proposed (173m) as well as reinforcement of existing hedgerow (2.8km), repairing any gaps larger than 0.5m wide. Planting will include native species such as field maple (*Acer campestre*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), holly (*Ilex aquifolium*), blackthorn (*Prunus spinosa*) and bird cherry (*Prunus padus*).
- Buffer planting of native shrubs (0.65ha) around the Site boundary is proposed. The species mix will be agreed with Denbighshire Borough Council and ideally sourced from those grown at the council's tree nursery at St Asaph.
- Areas of native tree planting (1.19ha) will extend existing woodlands adjacent to the Site boundary. The species mix will be agreed with Denbighshire Borough Council and ideally sourced from those grown at the council's tree nursery at St Asaph.



Environmental Statement Volume 2: Appendices

- Ponds on Site will be retained and two will undergo reinstatement and improvement. A further seven will be created, having a minimum surface area of 100m² and will be of a sufficient depth to hold water in at least one in three summers. Spoil generated from the reinstatement or forming of ponds shall be used to create a series of hibernacula, each measuring at least 2m in length, 1m in width and 1m in height.
- The proposals include the creation of wildflower meadow and tussocky grassland suitable for great crested newt and supporting invertebrates and pollinators.
- Landscaping during operation will include aftercare as detailed in this LEMP.



Vision, Aims, Objectives and Future Trends

Vision

- 7.9.27 The landscape strategy seeks to provide a holistic landscape and ecological mitigation strategy for the Proposed Development and offers the opportunity to retain, enhance and create a variety of landscape features alongside the proposed built elements. These measures will assist in integrating the Proposed Development within the landscape, as well as complementing local landscape character and providing biodiversity opportunities.

Aims and Objectives

- 7.9.28 To achieve this vision, the key overarching aims and objectives of the LEMP are set out below:

Aim 1: To retain and enhance existing features

- 7.9.29 Objectives:

- Secure the current value of existing landscape features to be retained;
- Enhance those features that have potential for improvement; and
- Extend and connect isolated or fragmented habitats of value.

Aim 2: To establish new, high-quality landscape features within the Proposed Development

- 7.9.30 Objectives:

- Ensure new planting is healthy and of good form;
- Provide for the successful establishment of all proposed planting; and
- Ensure built elements and hard surfacing are maintained in good order.

Aim 3: To enhance biodiversity and ecological value

- 7.9.31 Objectives:

- Secure a healthy structure for trees, ponds, and grassland and encourage native shrub species and ground flora development;
- Extend and link habitat areas within and adjacent to the Site to create ecological corridors; and
- Provide additional foraging, shelter and commuting routes for wildlife.

Aim 4: To soften and integrate the Proposed Development within the surrounding landscape

- 7.9.32 Objectives:

- Maintain and enhance the healthy growth of trees, shrubs and grassland for landscape and visual amenity value;
- Ensure the successful establishment of screening planting to minimise impacts on visual amenity; and



- Enhance and reinforce structural landscape features and habitats which contribute towards a larger framework of green infrastructure throughout the Proposed Development.

Future Trends

- 7.9.33 This LEMP has been prepared to reflect the baseline conditions set out above with a view to ensuring the successful establishment of landscape proposals and ecological mitigation set out in the approved planning application.
- 7.9.34 However, landscape is dynamic and there will inevitably be changes to the Site and its features over the lifetime of the development and the period covered by this plan. The greatest source of pressure on the landscape is likely to be climate change.
- 7.9.35 Climate change is predicted to result in more extreme weather events across the UK, with heavier rainfall and more sustained periods of hot dry weather leading to increased flooding and droughts. These conditions are likely to result in a greater number of failed plants, particularly if these extreme events occur in the first two to three years after planting. Climate change is also known to be exacerbating bio-security issues, with native tree populations under attack by a number of pathogens and pests that have arrived in the UK in recent years.
- 7.9.36 Whilst the planting and maintenance specifications have been prepared with the changing climate in mind, it is not possible to predict climate change at the scale of the Site, and it is likely that changes to microclimate will favour some species at the expense of others. Continual monitoring of the establishing planting proposals and frequent review of the LEMP will assist in adapting to a dynamic landscape. Notwithstanding the above, the following measures will assist the scheme to adapt to changes in climate and biosecurity issues:
- Plant selection includes a range of species based on surveys of the local area;
 - Plant species to be native stock wherever practicable;
 - Planting pit ground preparation to maximise drainage;
 - Mulching to minimise evaporation;
 - Watering to be carried out during prolonged dry spells; and
 - Monitoring of failed planting and adjustment of replacement species mixes where deemed appropriate.



Landscape Maintenance Components

Landscape Maintenance Component Definition

- 7.9.37 Critical to the management process is the identification of Landscape Maintenance Components. These are habitat and vegetative features with defined characteristics and qualities for which there are related user expectations, and which require distinct maintenance guidance.
- 7.9.38 The landscape features of the Proposed Development have been divided into a number of different Landscape Management Zones and Components, illustrated on **Figure 7.9: Landscape Management Zones Plan**. To achieve the overarching objectives for the LEMP, maintenance recommendations and tasks have been identified for each Landscape Management Component.

Landscape Zones and Components

- 7.9.39 The Landscape Components are outlined as follows.

Zone 1: Open Field

- Component 1: Grassland; and
- Component 2: Proposed Fencing and Hard Surfacing.

Zone 2: Structural Landscape

- Component 3: Trees and Woodland;
- Component 4: Hedgerows and Shrubs; and
- Component 5: Ponds and Ditches.

Component 1: Grassland

- 7.9.40 The proposals include the creation of wildflower meadow and tussocky grassland suitable for great crested newt and supporting invertebrates and pollinators.
- 7.9.41 Existing grassland will be retained and protected as far as practicable from construction activities, including through the use of ground protection mats where vehicle crossings cannot be avoided. Existing grassland communities will be over-seeded and where any damage does occur as result of construction operations, damage shall be remediated as follows: soil will be cultivated to a depth of 300mm in dry conditions, with existing topsoil firmed and levelled to a medium, even tilth and seeded with General-purpose Meadow Mixture (Emorsgate EM1), inside fences and Wildflower Meadow Hedgerow Mixture (Emorsgate EH1) to be seeded beneath panels, Wildflower Meadow Tussock Mixture (Emorsgate EM10) to be seeded outside fences. No cultivation is to be carried out in operational buffer zones established as part of BS 5837:2012 protection works. Seeding is to be carried out in strict accordance with supplier's recommendations, with rolling carried out to ensure good contact between seed and growing medium. Seeding is to be carried in March to April or September to October immediately following cultivation.
- 7.9.42 Grassland inside the perimeter fence is to be sheep-grazed or mown on a regular basis as required to prevent shading of the panels or security features.
- 7.9.43 Grassland outside perimeter fence is to be grazed/mown no more than once every three years to encourage the establishment of a tall sward. This grassland is to remain ungrazed/uncut and undisturbed (using stock-proof fencing if necessary) between March and August inclusive;



and to be grazed/cut annually between September and February inclusive to prevent encroachment of scrub.

Maintenance Strategy

- 7.9.44 In the first two years after seeding, all remediated grassland areas will be grazed/cut regularly to a height of 50mm up to a maximum of three annual cuts to control weed growth, until no longer required to prevent undesirable annual weed growth.
- 7.9.45 Thereafter grassland will be grazed/cut in accordance with **Table 5.1**.
- 7.9.46 Water well during periods of prolonged periods of dry weather.
- 7.9.47 Undesirable herbaceous (ruderal) species will need to be controlled. These species include those which legally need to be controlled and those which suppress or otherwise inhibit the development of a species-rich sward. Remove any invasive or exotic species annually in autumn or winter, ideally by hand, to ensure growth of other species is not suppressed. Ideally, weeds will be removed by hand pulling, and weed wiping/spot spraying should not be necessary. Use of pesticides and fertilisers will be avoided; however, spot treatment may be applied where pernicious or invasive weeds occur. Herbicides shall not be used within proximity of any watercourses.

Table 5.1: Maintenance Tasks – Meadow Grassland

Task	Frequency	Timing
Water any seeded areas during prolonged periods of dry weather	Year 1	As required
Mow regularly within proposed perimeter fence to control weed growth or allow sheep grazing	Years 1 to 2	April to September
Allow grassland outside perimeter fence to grow to a tall sward and graze/cut no more than once every three years between September and February inclusive	Every three years	September to February
Hand pull or spot treat weeds	Yearly	April to September
Cut areas remedially seeded	Years 1 to 2	As required, up to three times per year
Remove any litter or debris	Bi-annually	Any
Preparation of Annual Monitoring Report	Annually	n/a

Component 2: Proposed Fencing and Hard Surfacing

- 7.9.48 The Proposed Development includes post and wire stock-proof fencing around the perimeter of the proposed solar panels. Access routes are proposed throughout both parcels and a small compound is proposed within the eastern extents of the western parcel, which will comprise an area of compacted granular material.

Maintenance Strategy

- 7.9.49 In order to maintain security and a high standard of appearance, these proposed features will be maintained to a high standard throughout the lifetime of the Proposed Development, as set out in **Table 5.2**.



Table 5.2: Maintenance Tasks – Fencing and Hard Surfacing

Task	Frequency	Timing
Check and report on defects with fencing, with remedial works to be carried out at the earliest opportunity	Monthly	n/a
Strim back any weed growth on hard surfacing	Annually	September
Remove any litter or debris	Bi-annually	Any
Top up and recompact any granular fill to ensure no puddles or ruts form on areas of hard standing, and clean away any accumulated mud to prevent tracking onto adjacent roads	Every three years	September

Component 3: Trees and Woodland

- 7.9.50 Areas of native tree planting (1.19ha) will extend existing woodlands adjacent to the Site boundary. The species mix will be agreed with Denbighshire Borough Council and ideally sourced from those grown at the council's tree nursery at St Asaph.
- 7.9.51 The Proposed Development does not require the removal of any existing trees, although it will have an impact on some of the trees within or adjacent to the Site. These impacts are set out within the Tree Survey Report and Arboricultural Impact Assessment produced by SLR Consulting Limited (April 2025) as follows:

“Trees requiring ‘No Dig’ construction within their RPAs only:

T68 (category A), T69 (category B), T70 (category B).

Trees requiring ‘No Dig’ construction within their RPAs and to be protected with Tree Protection Fencing:

T24 (category U), T30 (category A), T31 (category U), T32 (category B), T149 (category C), T84 (category A), T85 (category A), T86 (category B), T164 (category B).

Trees to be protected with Tree Protection Fencing:

T34 (category A), T35 (category B), T36 (category B), T37 (category A), T40 (category A), T61 (category B), T100 (category A), T140 (category C).

Incursion into the RPAs of the following trees/groups by the security fencing:

T41 (category B), T48 (category A), T50 (category A), T56 (category B), G59 (category A), T97 (category U), T123 (category A), T143 (category A), T146 (category U), T147 (category A).

Trees requiring ‘No Dig’ construction within their RPAs, are to be protected with Tree Protection Fencing and have incursions into their RPAs by the security fence:

T98 (category A).

Trees to be crown reduced and/or lifted to facilitate the required clearances over the proposed track:

T149 (category C)”

- 7.9.52 The landscape strategy includes the establishment of areas of new native tree planting along the Site's boundaries. This planting is intended to reinforce and extend the wooded character



of the context and further contain the Solar Site, and to extend and link together existing woodland habitats within and around the Solar Site.

- 7.9.53 All existing trees and woodlands will be protected from damage during construction and decommissioning in accordance with BS 5837: 2012. Beyond the impacts set out above and within the Tree Survey Report and Arboricultural Impact Assessment, all other construction activities will be located outside of the RPA and crown spread of all retained trees. More detailed explanation of the requirements and practices relating to the protection of retained trees is set out in Sections 5.3 to 5.7 of the Tree Survey Report and Arboricultural Impact Assessment, which also contains a further Preliminary Arboricultural Method Statement in Section 7.
- 7.9.54 Tree planting is to be in accordance with BS 4428:1989. Planting of bare root stock shall take place in October to March in favourable planting conditions – soil shall be free from frost and waterlogging.
- 7.9.55 Individual trees will be between 350-425cm in height at the time of planting. Proposed grouped tree planting will be of bare root transplants notch planted at between 0.25 plants/m² and 10m centres in single species groups of three to five plants. Transplants are to be supported and protected by a PP photodegradable tube guard 0.6m high x 50mm diameter or greater to suit girth of shrub/tree, supported by 900mm bamboo canes inserted 300mm below ground level.

Maintenance Strategy

- 7.9.56 The retention of mature trees will be secured by the continued application of “minimal safety management” rules. If practicable, works should be undertaken outside the bird nesting season (nesting season is March to August inclusive). If this is not practicable, appropriate checks by a qualified ecologist should be undertaken and, if occupied nests are identified or suspected, works will need to be delayed until nestlings have fledged. If necessary, further surveys should be carried out and appropriate licences obtained to ensure legal compliance and/or to secure appropriate or necessary mitigation.
- 7.9.57 “Future veteran” trees and “old growth” features will be encouraged by retaining specific trees to mature and decline naturally. Small-scale selective felling shall be undertaken where desirable to improve stand composition and structure and to create opportunities for natural regeneration, enrichment planting, and occasional permanent glades.
- 7.9.58 Any timber arising from safety and regenerative works shall be piled in appropriate locations within woodland areas to break down naturally and provide food and habitat for invertebrates.
- 7.9.59 All staked trees shall be inspected on each maintenance visit, and any trees that have died or have suffered physical damage, such that they no longer provide any useful landscape function, shall be removed from Site, complete with the stake, and the ground reinstated.
- 7.9.60 Any trees that fail to establish within the first five years shall be replaced in the next available planting season in accordance with the original planting specification. Where a single species is failing in large numbers, the species mix may be revised in agreement with the Local Planning Authority.
- 7.9.61 Any dead, diseased or damaged branches shall be pruned back to the main stem or suitable side shoot or removed.
- 7.9.62 Mulched areas around proposed trees shall be maintained for the first five years to a minimum depth of 10cm.
- 7.9.63 Watering is to be undertaken as necessary to allow healthy establishment of plants, particularly during prolonged periods of hot, dry weather.
- 7.9.64 Trees and woodland, and all establishing planting shall be subject to annual monitoring by an appropriately experienced ecologist.



Environmental Statement Volume 2: Appendices

- 7.9.65 All existing and proposed trees are to be inspected by a qualified arboriculturist every three years with any recommended tree works carried out in accordance with BS 3998:2010 'Tree Works – Recommendations', Health and Safety legislation and relevant best practice.
- 7.9.66 At the beginning and end of each growing season plant protection shall be inspected. Any looseness, constriction or abrasion shall be corrected by adjustment or replacement as required. Where the support of a stake is no longer required the stake shall be removed from Site. All plant protection shall be removed from Site after three years, unless still required to ensure the successful establishment of planting (e.g. for newly planted trees to replace failures).
- 7.9.67 The height of planting is to be maintained to a maximum of 10m where it is 35-60m from panels, or 15m where it is at least 60m from panels, to prevent overshadowing of panels.
- 7.9.68 Maintenance tasks are summarised in **Table 5.3**.

Table 5.3: Maintenance Tasks – Trees and Woodland

Task	Frequency	Timing
Water all proposed planting to ground capacity to ensure successful establishment	As required	Years 1 to 3
Inspect and adjust plant protection including loosening to avoid damage	Annually	Years 1 to 3 October to April
Maintenance of a 1m diameter weed-free area to the base of each proposed tree through the application of a 10cm mulch	Annually	Years 1 to 5 March
Check for root firmness and upright alignment of tree after high winds, frost heave and in spring and autumn until trees are wind firm	Bi-annually	Years 1 to 3 April and October
Remove any litter or debris	Bi-annually	Any
Safety inspections and report on condition of trees by arboricultural advisor	Every three years	Any
Works recommended following inspection typically include the removal of fallen, diseased, dead, dying or dangerous trees and damaged or crossing branches	Every three years	As recommended by arboricultural advisor
Remove all plant protection once no longer required for establishment of proposed planting	After three years	n/a
Replace any planting that fails to establish within the next available planting season in accordance with the original specification	Annually	October to April
Selective felling and thinning to improve structural diversity of woodland	Every five years	n/a
Thin and reduce height of shrub planting to a maximum of 10m where it is 35-60m from panels, or 15m where it is at least 60m from panels, across half of Site on a two year rotational cycle	Annually	As recommended by arboricultural advisor
Remove timber and arisings from safety and regenerative work and use to create deadwood habitat and refugia in local areas	Immediately following any works	n/a
Inspection and preparation of Annual Monitoring Report	Annually	n/a



Component 4: Hedgerows and Shrubs

- 7.9.69 Hedgerows will be retained wherever practicable, although the Proposed Development will have an impact on some of the hedgerows within or adjacent to the Site, due to the requirements for access between the fields. These impacts are set out within the Tree Survey Report and Arboricultural Impact Assessment produced by SLR Consulting Limited (April 2025) as follows:

“Sections of hedgerow to be removed:

H26, H33, H44, H60, H66, H101, H104, H137 (all category C).”

- 7.9.70 New hedgerow is proposed (173m) as well as reinforcement of existing hedgerow (2.8km), repairing any gaps larger than 0.5m wide. Planting will include native species such as field maple (*Acer campestre*), hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), holly (*Ilex aquifolium*), blackthorn (*Prunus spinosa*) and bird cherry (*Prunus padus*).
- 7.9.71 Buffer planting of native shrubs (0.65ha) around the Site boundary is proposed. The species mix will be agreed with Denbighshire Borough Council and ideally sourced from those grown at the council's tree nursery at St Asaph.
- 7.9.72 Existing hedgerows for retention will be protected in accordance with BS 5837:2012.
- 7.9.73 Existing native hedgerows should be positively managed to maximise landscape and wildlife value, favouring hedge-laying for restoration of hedgerow structure and an alternating management cycle of cutting one side of the hedgerow every two or three years. Proposed new hedgerow and reinforcement hedgerow planting will comprise native hedgerow species and will contribute to the mosaic of habitats within the Site and provide enhanced habitat connectivity. Both existing and proposed hedgerows will also contribute to the wider landscape setting of the Proposed Development, and to landscape character assessment objectives.
- 7.9.74 Hedgerows are to be pit planted in a 0.5m wide x 0.3m deep weed-free trench (or larger if necessary, in order to take the full spread of the roots). The sides and bottom of the trench will be forked over and 'ripped' to facilitate proper drainage, prior to back-filling. The trench shall be excavated on the same day as planting and back-filled with an appropriate excavated topsoil/compost mix.
- 7.9.75 Where existing hedgerow is to be gapped up or reinforced, this will be hand dug only, with care to avoid damaging existing planting, not severing any roots larger than 2.5cm in diameter. No herbicide is to be used in proximity to existing vegetation. Hedgerow reinforcement is to be planted at 0.5m centres to the back of existing vegetation wherever practicable. Any gaps in existing hedgerows larger than 0.5m wide are to be filled.
- 7.9.76 Transplants, cuttings and seedlings are to be protected with PP photodegradable tube guards 0.6m high x 50mm diameter or greater to suit the girth of the shrub or tree, supported by 900mm bamboo canes inserted 300mm below ground level.
- 7.9.77 Container-grown shrubs are to be protected by recycled HDPE photodegradable mesh guards 0.6m high x 150-180mm diameter or greater to suit the diameter of the shrub, supported by 900mm timber stakes inserted 300mm below ground level. Protection methods must not restrict natural movement or growth.
- 7.9.78 Shrub planting is to be installed with rabbit protection, in the same method as hedgerow plants. Bare root transplants are to be notch planted at 0.5 plants/m² in single species groups of three to five plants, hand dug with care in proximity to existing trees, not severing any roots larger than 2.5cm in diameter.

Maintenance Strategy



Environmental Statement Volume 2: Appendices

- 7.9.79 Best practice horticultural techniques should be used in the planting of native hedgerow vegetation to ensure rapid early growth. The ground below planting will be maintained as weed free through mulching for the first three years after planting.
- 7.9.80 Hedgerows shall be pruned on one side per year alternating on a two or three year rotation in February, aiming to maintain a minimum height of 2.5-3m to promote bushy growth while providing continued habitat and foraging opportunities for wildlife. Hedgerow trees shall be selected, retained and encouraged to develop to full maturity.
- 7.9.81 All shrub planting is to be thinned on a two-year rotational cycle to promote new growth. The height of planting is to be maintained to a maximum of 4m where it is 15-35m from panels, or 10m where it is 35-60m from panels, to prevent overshadowing of panels.
- 7.9.82 Maintenance tasks are summarised in **Table 5.4**.

Table 5.4: Maintenance Tasks – Hedgerow & Scrub

Task	Frequency	Timing
Water all proposed planting to ground capacity to ensure successful establishment	As required	Years 1 to 3
Inspect and adjust tree stakes, ties and plant protection including loosening to avoid damage	Annually	Years 1 to 3 October to April
Maintenance of a 1m diameter weed-free area to the base of each proposed plant for three years through the application of 10cm mulch	Annually	Years 1 to 3 March
Check for root firmness and upright alignment of plant after high winds, frost heave and in spring and autumn until trees are wind firm	Bi-annually	Years 1 to 3 April and October
Remove any litter or debris	Bi-annually	Any
Remove all stakes, ties and plant protection once no longer required for establishment of proposed planting	After three years	n/a
Replace any planting that fails to establish within the next available planting season in accordance with the original specification	Annually	October to April
Undertake routine maintenance visits identifying the existence and location of any hedgerow plants which are suffering from visible defects likely to cause danger, potential danger, obstruction or nuisance to users of adjoining properties, pathways and roadways	Annually	April
Non-desirable woody species should be removed during management operations and at other times as necessary, where this does not prejudice screening requirements	Annually	April
Thin and reduce height of shrub planting to a maximum of 4m where it is 15-35m from panels, or 10m where it is 35-60m from panels, across half of Site on a two year rotational cycle	Annually	March
Hedgerows shall be pruned on one side per year, alternating on a two or three year rotation in February, and maintained to a height of 2.5-3m to promote bushy growth	Annually	February



Task	Frequency	Timing
Hand weeding, where practicable, should take precedence over the use of herbicides in hedgerows. However, in certain instances, herbicide may be the most effective measure to take against unwanted species. Where herbicide application is needed this should be in small controlled areas around the tree base. Herbicides must be listed on the HSE Pesticides Register of UK Authorised Products, and herbicide application must conform to the 'Pesticides: Code of Practice for Using Plant Protection Products' (DEFRA, January 2006).	Annually	Hand weeding: As required by maintenance visits Herbicide application: July to August
Inspection and preparation of Annual Monitoring Report	Annually	n/a

Component 5: Ponds and Ditches

- 7.9.83 Ponds on Site will be retained and two will undergo reinstatement and improvement. A further seven will be created, having a minimum surface area of 100m² and will be of a sufficient depth to hold water in at least one in three summers. Spoil generated from the reinstatement or forming of ponds shall be used to create a series of hibernacula, each measuring at least 2m in length, 1m in width and 1m in height.

Maintenance Strategy

- 7.9.84 Confine movement channels for maintenance to the minimum number of routes to avoid excessive trampling of existing habitat.
- 7.9.1.1 Remove any invasive or exotic species that may establish in the duration of the Proposed Development annually in autumn or winter, ideally by hand, to ensure growth of other species is not suppressed. Use of pesticides and fertilisers will be avoided. Herbicides shall not be used.
- 7.9.85 Works to all wet landscape features will be carried out during late autumn or winter months (ideally late September to October) to avoid harm to wildlife.
- 7.9.86 Maintenance tasks are summarised in **Table 5.5**.

Table 5.5: Maintenance Tasks – Ponds and Ditches

Task	Frequency	Timing
Monitor water quality and take appropriate preventative/remedial action	Annually	n/a
Manual removal of invasive/exotic species	Annually	October to April
Remove any litter or debris	Bi-annually	Any
Inspection and preparation of Annual Monitoring Report	Annually	n/a



General Maintenance and Management Tasks

- 7.9.87 All new planting shall be maintained by annual visits.
- 7.9.88 All plants shall be checked and if necessary, firmed up in the ground.
- 7.9.89 Any damaged shoots or branches shall be pruned off using secateurs.
- 7.9.90 The Contractor shall ensure that all new planting is maintained free of weed growth. This shall normally be achieved by the application of mulching and hand pulling of weeds, although appropriate contact herbicides are permitted where necessary. It remains the responsibility of the Contractor to adopt suitable methods for weed control based on training and accreditation.
- 7.9.91 The Contractor shall remove any dead, dying, or diseased plants that are evident during any maintenance visit. The Operations Manager shall be informed of the location, number and species of all material that has been removed. Any plants that have failed shall be replaced during the next planting season.
- 7.9.92 All replacement planting shall be with like species unless otherwise agreed with the Operations Manager. Plant failures shall be monitored, and alternative species may be agreed with the Local Planning Authority should any single species be subject to repeated or significant failures.
- 7.9.93 The Contractor shall clean and make good all hard standings, fencing, planting areas, highways and footways after each visit. No stockpiles are to be left on Site.
- 7.9.94 Plant material is to conform to the National Plant Specification. Plant handling and planting operations are to be in accordance with HTA 'Handling and Establishing Landscape Plants', Parts I-III.

The Use of Pesticides & Other Hazardous Substances

- 7.9.95 The Contractor's attention is drawn to the following statutes and regulations:
- The Food and Environment Protection Act 1985;
 - Plant Protection Products Regulations 2011;
 - Plant Protection Products (Sustainable Use) Regulations 2012;
 - The Control of Substances Hazardous to Health Regulations 2002; and
 - The Environmental Protection Act 1990.
- 7.9.96 It is the Contractor's responsibility to ensure that they are fully conversant with the requirements of the above legislation and other relevant Codes of Practice, British Standards, rules or guidelines that relate to the use of hazardous materials.
- 7.9.97 All manufacturers' recommendations relating to application, storage, mixing and other safety precautions must be strictly adhered to, in the interests of health and safety.

Litter Removal

- 7.9.98 The Contractor shall ensure that the Site is kept free of litter and other debris through a regular programme of monitoring, collection and disposal, coinciding with visits to maintain grassed areas and planting.
- 7.9.99 Particular care shall be taken to remove all broken bottles, glass, tins, sharp objects and other items likely to constitute a hazard to people or wildlife.



7.9.100 The Contractor shall take particular care when carrying out litter collection to ensure that any discarded needles or syringes are removed as soon as they are discovered. Such items must be packaged separately from other litter, and be contained within appropriately labelled, puncture-proof sharps containers supplied by the Contractor.

7.9.101 All litter and debris shall be removed off Site to an authorised tip.

This shall be carried out in accordance with the Code of Practice on Litter and Refuse issued under Section 89 of the Environmental Protection Act (1990).

Implementation and Management Structure

7.9.102 This LEMP incorporates the objectives and prescriptions for the suggested approach to be adopted in the maintenance and management of the landscape features which are to be incorporated into the Proposed Development.

7.9.103 The aim is to promote a sensitive management approach, which protects and improves the landscape and visual amenity value interests of the Site, is compatible with the proposed uses of the Site and maximises the habitat and biodiversity potential of the landscape scheme.

7.9.104 This LEMP will be implemented fully and wholly by the Applicant. Anesco Ltd have an in-house Operations and Maintenance (O&M) division which specialises in installing and maintaining renewable energy schemes. The company has an exemplary safety record and is OHSAS 18001 and RoSPA Gold accredited for its approach to safety and the prevention of accidents. The company is also ISO 9001:2015 quality accredited and ISO 14001:2015 environmental accredited. Anesco O&M will have overall responsibility for the administration of the LEMP, and where necessary will appoint specialist contractors or professional consultants to work on their behalf.

7.9.105 Anesco O&M will be responsible for all proposed hard and soft landscape proposals, as well as the maintenance of proposed solar power infrastructure for the lifetime of the Proposed Development. Specialist landscape and ecological consultants and contractors will be appointed as necessary by Anesco O&M to carry out works on Site.

7.9.106 The LEMP will be reviewed every five years by the Operations Manager with input from a suitably qualified landscape architect and ecologist with a view to ensuring all maintenance objectives are being met, and that the management requirements set out in the LEMP continue to provide effective and appropriate measures to meet those aims.

7.9.107 These periodic reviews shall include analysis of monitoring of the condition of the landscape and biodiversity components at the start of the period, the work carried out, and how well the habitats and landscape have responded to maintenance measures. This review should assess the extent to which the measures undertaken have achieved the objectives and vision of the LEMP and should identify whether the same measures should continue, or different methods be introduced, to achieve the objectives.



Annual Maintenance Schedules

Table 8.1: Annual Maintenance & Management Schedule Years 1-5

Task	Number of Annual Operations				
	Year 1	Year 2	Year 3	Year 4	Year 5
Remove any litter or debris from the Site	2	2	2	2	2
Check and report defects with fencing – remedial works carried out at the earliest opportunity	12	12	12	12	12
Meadow grassland areas	As required	-	-	-	-
Water all proposed hedgerow, shrubs and new planting to ground capacity	As required	As required	As required	-	-
Graze/cut proposed meadow grassland regularly	As required	As required	-	-	-
Hand pull or spot treat weeds in meadow grassland	1	1	1	1	1
Graze/cut areas proposed for seeding	1	1	1	1	1
Strim back any weed growth on hard surfacing	1	1	1	1	1
Replace any planting that fails to establish within the next available planting season	1	1	1	1	1
Undertake routine maintenance of hedgerows/shrubs	1	1	1	1	1
Removal of non-desirable woody species and weeds from hedgerow/shrub planting	1	1	1	1	1
Prune hedgerows on one side per year, alternating on a two or three year rotation	1	1	1	1	1
Thin and reduce height of trees and shrubs across half of Site on a two year rotational cycle	1	1	1	1	1
Monitor water quality and take appropriate preventative/remedial action, including removal of invasive exotic species	1	1	1	1	1
Maintain hard standing	-	-	1	-	-
Safety inspections and report on condition of trees by arboricultural advisor	-	-	1	-	-
Works to trees as recommended following inspection	-	-	1	-	-
Selective felling and thinning to improve structural diversity of woodland	-	-	-	-	1
Remove timber and arisings from safety and regenerative work and use to create deadwood habitat and refugia in local areas	-	-	-	-	-
Review of LEMP by Operations Manager and consultant Landscape Architect and Ecologist as appropriate for ongoing management of scheme	-	-	-	-	1



Table 8.2: Annual Maintenance & Management Schedule Years 6 - 20

Task	Number of Annual Operations														
	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Remove any litter or debris from the Site	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Check and report defects with fencing – remedial works carried out at the earliest opportunity	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Remove all stakes, ties and plant protection once no longer required for replacement planting	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Hand pull or spot treat weeds in meadow grassland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Graze/cut areas proposed for seeding	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Strim back any weed growth on hard surfacing	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Undertake routine maintenance of hedgerows/shrubs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Removal of non-desirable woody species and weeds from hedgerow/shrub planting	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Prune hedgerows on one side per year, alternating on a two or three year rotation	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Thin and reduce height of trees and shrubs across half of Site on a two year rotational cycle	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Monitor water quality and take appropriate preventative/remedial action, including removal of invasive exotic species	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Preparation of Annual Ecological Monitoring Report	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Top up and recompact any granular fill to ensure no puddles or ruts form on areas of hard standing, and clean away any accumulated mud	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1
Safety inspections and report on condition of trees by arboricultural advisor	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1
Works recommended following inspection	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1
Drainage ditch clearance	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1
Selective felling and thinning to improve structural diversity of woodland	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1
Remove timber and arisings from safety and regenerative work and use to create deadwood habitat and refugia in local areas	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1
Review of LEMP by Operations Manager and consultant Landscape Architect and Ecologist as appropriate for ongoing management of scheme	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1



