

Outline Landscape and Environmental Management Plan

DOC 13

Development of National Significance

Alaw Môn Solar Farm

Land west of the B5112, 415m south of Llyn Alaw, 500m east of Llantrisant and 1.5km west of Llannerch-y-Medd, Anglesey

March 2023





Alaw Môn Solar Farm, Anglesey

Outline Landscape and Ecological Management Plan

On behalf of Wylfa Green Limited

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	Name	Position	Date
Prepared by:	Claire McHarrie	Associate Director Landscape Architect	20.02.2024
Reviewed by:	David Webster	Associate Landscape Architect	23.02.2024
Approved by:	Matt Chard	Director Landscape Architect	23.02.2024
For and on behalf of Stantec UK Limited			

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1 Introduction

1.1.1 This Outline Landscape and Ecological Management Plan (LEMP) has been prepared by Stantec to provide a long-term landscape management and maintenance approach for the implementation and long-term after-care of landscape aspects of Alaw Môn Solar Farm. It has been prepared to accompany a Development of National Significance (DNS) application for the installation of a solar farm, energy storage facility and associated works ('the Proposed Development') on land west of the B5112 and is located 415 m to the south of Llyn Alaw, 500 m to the east of the small hamlet of Llantrisant, and 1.5 km to the west of the village of Llannerch-y-Medd ('the Site').

1.1.2 An Outline LEMP has been requested by Isle of Anglesey County Council (IACC) in January 2024 during the Pre-Application Consultation (PAC) undertaken. The Outline LEMP is prepared to accompany the DNS application, a detailed LEMP is to be agreed under a suitably worded Condition. In the PAC response the IACC suggested the following wording:

"No development or site clearance shall take place until a Landscape and Ecological Management Plan (LEMP) has been submitted to and approved in writing by the LPA. The LEMP shall provide details of:

i) All landscape and ecological objectives and management, protection, maintenance, and monitoring proposals to deliver the objectives;

ii) schedules and timescales for delivery of the LEMP; and,

iii) Reporting and monitoring responsibilities and delivery mechanisms for all elements of the LEMP. The LEMP shall be implemented in accordance with the approved details.

The LEMP shall be implemented in accordance with the approved details. "

1.1.3 Natural Resource Wales (NRW) also suggested an LEMP Condition during the PAC undertaken in their December 2023 response, they suggested the following wording:

"No development shall commence until a Landscape Ecological Management Plan (LEMP) for the management and maintenance of the Nantanog SSSI features at the site has been submitted to and approved by the determining authority. The LEMP should include:

- *Details of short and long-term management, monitoring, and maintenance of vegetation at the site (particularly in relation to Nantanog SSSI) to deliver and maintain the desired condition.*
- *Details of management and maintenance responsibilities.*
- *Details of timescales, length of plan, the method to review and update plans (informed by monitoring) at specific intervals as agreed.*

The LEMP shall be carried out in accordance with the approved details."

1.1.4 The wording of the detailed LEMP Condition will be agreed during the examination of the DNS.

1.2 Planning and Legislative Background

1.2.1 The Outline LEMP is intended to satisfy the intent of Regulation 9 of The Conservation of Habitats and Species Regulations 2017 which seeks the compliance with the Directives through the functions of an authority competent in habitats conservation management.

1.2.2 Section 6 of the Environment (Wales) Act 2016 sets out the biodiversity duty of public authorities in Wales to “seek to maintain and enhance biodiversity in the exercise of its functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions”. The duty required authorities to take account of the resilience of ecosystems and in particular the DECCA Framework, where DECCA stands for Diversity, Extent, Condition, Connectivity, and Adaptability:

- Diversity between and within ecosystems;
- Extent: increasing the area of semi-natural habitat/features;
- the Condition of ecosystems (including their structure and functioning); and,
- the Connections between and within habitats; and
- the Adaptability of ecosystems.

1.2.3 In response to Section 6, Planning Policy for Wales¹ (PPW) requires that “Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity. In doing so planning authorities must also take account of and promote the resilience of ecosystems...”. (6.4.5)

1.2.4 “Welsh Government’s Approach to Net Benefits for Biodiversity and the DECCA Framework in the Terrestrial Planning System” outlines the Welsh Government’s approach to delivering net benefits for biodiversity and key considerations for ecologists and developers in submitting planning proposals. The briefing notes the following which is of relevance to long term management of landscape and ecology:

“Once the measures have been designed to achieve NBB and improved ecosystem resilience, the final essential steps are developing long term management (maintaining the habitat for as long as is necessary depending on what is being secured) and monitoring plans that are proportional to the scale and impact of the development. Monitoring plans should identify key measures of success, and what rectification actions will be taken by who if these success measures are not met. Management plans should clearly set out timescales and responsibilities for all stakeholders involved. NBB [Net Benefits for Biodiversity] measures should aim to be designed in such a way that minimal maintenance is required, they are climate change resilient, and that opportunities for destruction, damage or removal of features should be reduced as far as possible.” (Page 10)

“The onus on the developer will be to demonstrate how the development will deliver this, including evidence of site management and the resources to do this for as long as is necessary.” (Page 5)

1.2.5 The Outline LEMP is intended to guide how requirements can be satisfied through identification of management components, success criteria and required monitoring activities. In the production of this strategy, input has been received from ecological consultancy, BSG Ecology, to ensure appropriate reference to existing species and habitats and mitigation measures has been included.

¹ Welsh Government, February 2024. Planning Policy Wales - Edition 12

2 Scope

2.1 Overview

- 2.1.1 The aim of this Outline LEMP is to promote a sensitive management approach that protects, manages, and enhances the Site for the benefit of habitats in the long-term, and which protects/safeguards it during construction/installation works.
- 2.1.2 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 incorporating newly created habitats of woodland, scrub, grassland, hedgerows, and ponds.
- 2.1.3 The Outline 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.
- 2.1.4 This Outline LEMP has been prepared to cover the operation life of the Proposed Development.

2.2 Document Structure

- Section 3 describes the existing landscape context and describes the existing fauna and flora present in and around the Site, including key species;
- Section 4 sets out the vision, aims and objectives for the Outline LEMP;
- Section 5 describes the Landscape Management Components and their associated maintenance tasks;
- Section 6 describes the general maintenance and management tasks;
- Section 7 outlines the arrangements for management responsibilities and the recommendations for the monitoring and review of the Outline LEMP; and
- Section 8 sets all maintenance tasks out in annual maintenance schedules for the plan period.

3 Existing Landscape

3.1 Site Context

- 3.1.1 The Site is located on the Isle of Anglesey in North Wales and covers 268.77 hectares ('ha') to the west of the B5112/B111 and south of Llyn Alaw Reservoir. The closest settlement to the Site is Llantrisant. The Site includes land within the adopted highway of local roads that runs from the Site to the point of connection to the National Grid Substation at Wylfa.
- 3.1.2 Located within a rolling landscape, the Site straddles a broad ridge between the Afon Alaw valley to the south-east, through which the rivers Afon Alaw and Cors-y-bol flow, and the valley of the Llyn Alaw reservoir to the north-west.

3.2 Site Appraisal

- 3.2.1 The Site comprises predominantly grazed fields of improved grassland, separated by hedgerows into 55 fields. There are a number of small watercourses and drains through and between the Site, including a tributary of the Cors-y-bol, a pond, drainage ditches, and a number of ponds in the immediate vicinity of the Site. There are some areas of marshy grassland and standing water, occasional trees, and belts of woodland occur in the north-eastern part of the Site.

3.3 Biodiversity Impact Assessment

- 3.3.1 This Outline LEMP draws on ecological survey and desk study information included within the Biodiversity Impact Assessment (BIA) carried out by BSG Ecology, detailed in Chapter 8 of the Environmental Statement. Based upon the BIA, strategies for protection and enhancement of habitats are evaluated in the Biodiversity Net Gain (BNG) Assessment, Green Infrastructure Statement and inform both the Landscape Strategy and this Outline LEMP.
- 3.3.2 The majority of the Site is grazed pasture, separated by hawthorn-dominated hedgerows and occasional field boundary trees. Areas of woodland are present. The Arboriculture Impact Assessment (AIA) which accompanies this application, provides detail on the species and condition of the 42 individual trees and 72 groups of trees across the site. Ponds are common features although there are few running watercourses in the area.
- 3.3.3 The main habitat types identified in the BIA are:
- Grassland (Improved, Semi-improved and Marshy)
 - Broadleaved woodland
 - Mixed Plantation woodland
 - Ponds and Standing Water
 - Running water and ditches
 - Earth Banks and Hedgerows
 - Acid Rock/Scree
- 3.3.4 Protected species potentially supported by the habitats on the Site include:
- Bats - derelict structures and trees within the Site are suitable for bat roosts. Trees, hedgerows and water features providing habitats suitable for foraging and commuting.

- Birds - Site is dominated by open heavily grazed-pasture that supports very few ground-nesting birds, the flash/pool at Nantanog, referred to as Pond 11, is regularly used by birds in winter.
- Great Crested Newts – Suitable terrestrial habitat for great crested newt exists on the Site in the form of scrub, hedgerows and drystone walls, and patches of marshy grassland, but none of the ponds within the Site support great crested newt
- Reptiles - Habitats within the Site that are suitable for reptiles include woodland, scrub, rough grassland at field edges and earth banks. The habitats present in the wider landscape are generally very similar to those found on the Site. The wetland and scrub adjacent to the Site within Cors-y-Bol LWS provides good habitat.
- Hedgehog - The Site supports habitat features that are typical within the local landscape. It is therefore assessed to be of ecological importance to hedgehog at the Site level.

3.4 Statutory and Non-Statutory Ecological Designations

- 3.4.1 The Site includes one statutory designated site for nature conservation (Nantanog SSSI).
- 3.4.2 Nantanog (geological) SSSI is separated from the solar arrays by a 10m buffer area which has been agreed through consultation with NRW (with the exception of a very short section of access track at the west tip of the SSSI, which is outside the SSSI but within the 10m buffer).
- 3.4.3 When consulted on the EIA Natural Resources Wales confirmed that it would like vegetation management within Nantanog SSSI to be incorporated within the LEMP (specifically grazing or scrub and vegetation management to prevent scrub encroachment and obscuring geological features).

3.5 Landscape Strategy

- 3.5.1 The Landscape Strategy draws together the ecological mitigation and enhancement measures set out in the BIA Table 8.8 Summary of New Habitat Features. These are set out below:
 - 6.21 ha of native woodland planting, in line with BSG Ecology's recommendations. Woodland is located where it will enhance the existing landscape character and provide some visual screening of the Proposed Development;
 - 1.69 ha of native scrub planting incorporated into the Development to enhance biodiversity;
 - Existing hedgerows surrounding and within the Site will be retained and enhanced (through gapping up and enhanced management). Internal field boundary hedgerows will be encouraged to fill out and maintained to a consistent height. Over 4,000 linear m of proposed native hedgerow will be planted to gap up and reinstate field boundaries and enhance habitat connectivity within the Site. Hedgerows to be pruned following a regime to prevent disruptions to foraging opportunities for wildlife;
 - A range of grassland types are proposed, with the fencing associated with the Development enabling changes in management regimes for different parts of the Site that would benefit from less intense grazing to encourage greater species diversity. The Landscape Strategy incorporates the preparation and seeding of existing grassland and changes in management regimes to minimise the amount of agriculturally improved areas and promote species rich grassland including hay meadow, rough tussocky grassland and marshy grassland;
 - Retained grassland within the inside perimeter fence is to be sheep grazed or mown regularly as required to prevent shading and coverage of solar panels and security features; and
 - The Landscape Strategy indicates Specific Landscape Management Areas for areas of particular ecological and cultural sensitivity:
 - Nantanog SSSI;

- Pond 11 buffer;
- Hedgerow Buffer Corridor; and
- Scheduled Monument Buffer.

4 Vision, Aims, Objectives & climate change

4.1 Vision

4.1.1 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.

4.2 Aims

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

- Aim 1: Secure the current value of existing landscape features that are to be retained;
- Aim 2: To establish new, high-quality landscape features to soften and integrate the Proposed Development within the surrounding landscape, enhancing its amenity and visual value;
- Aim 3: To enhance biodiversity and contribute towards a larger framework of Green Infrastructure; and
- Aim 4: To provide a framework for monitoring management of the Site in line with the Outline LEMP.

4.3 Objectives

- To protect features to be retained during site preparation and construction;
- To ensure new planting is healthy and of good form;
- To maintain the healthy growth of trees, shrubs and grassland for landscape and visual amenity value, and to minimise adverse visual impacts;
- To increase ecosystem resilience within the Site through strengthening and creating new species-rich hedgerows, providing additional connected areas of scrub, woodland, and species-rich grassland;
- To create a tussocky grassland buffer alongside the hedgerow network to form valuable marginal habitats at the field boundaries;
- To create a network of additional ponds, in clusters, surrounded by areas of longer grassland and scrub, to increase the suitability of the Site for amphibians;
- To provide additional nesting and foraging habitat for birds and other wildlife (through creation of new hedgerows and buffering of existing hedgerows with meadow grassland, together with new woodland and scrub planting);
- To incorporate specific enhancement measures for local priority species such as inclusion of specific species in planting mixes or targeted management regimes; and
- To implement periodic monitoring to ensure that the Site is being managed in line with the Outline LEMP and to inform remedial action, where necessary.

4.4 DECCA Framework

- 4.4.1 The Aims and Objectives outlined above align with the DECCA framework as required by Section 6 of the Environment (Wales) Act and the Planning Policy for Wales. Increasing the area of semi-natural habitats and creating connections between them is an objective met through the Landscape Strategy. The LEMP will provide the framework to ensure the establishment and sustainable management of these diverse ecosystems, ensuring the healthy functioning of ecosystems and adaptability of those ecosystems to climate change or other evolving environmental conditions.

5 Landscape Maintenance Components

5.1 Landscape Maintenance Component Definition

- 5.1.1 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.
- 5.1.2 To achieve the objectives for the Outline LEMP, maintenance recommendations and tasks have been grouped into Landscape Management Components.
- 5.1.3 Specific Landscape Management Areas are shown on the Landscape Strategy Plan. Components 1 - 5 below incorporate their specific maintenance requirements.
- 5.1.4 The Landscape Management Components are outlined as follows.
- Component 1: Trees and Native Woodland;
 - Component 2: Grassland;
 - Component 3: Hedgerows and Native Scrub;
 - Component 4: Ponds and Ditches;
 - Component 5: Hibernacula, Bat and Owl Boxes; and
 - Component 6: Proposed Fencing & Hard Surfacing.

5.2 Component 1: Trees and Native Woodland

- 5.2.1 Woodland is a national (Section 41, NERC Act 2006) Habitat of Principal Importance.
- 5.2.2 As set out in the Arboriculture Impact Assessment (AIA) which accompanies the Application, the Proposed Development does not require the removal of any significant trees, tree groups woodland or hedgerows. All existing trees and woodlands will be protected from damage during construction and decommissioning in accordance with the AIA recommendations and BS 5837: 2012. The ongoing management of existing woodland and trees will be amalgamated with that of proposed new woodland.
- 5.2.3 A total of 6.21 ha of native woodland planting is proposed, including sessile oak *Quercus petraea*, downy birch *Betula pubescens* and rowan *Sorbus aucuparia* in line with BSG Ecology's recommendations. The woodland areas form four linear blocks in the Landscape Strategy. One of these is in the central part of the northern Site, adjacent to the laneway leading to Nantanog Farm and enclosed by an existing area of mixed deciduous woodland along a stream running parallel to the lane. The other three edge the southern fields of the Site. This planting is intended to assist in screening views from public footpaths crossing adjacent ridgelines, and to extend and link together existing woodland habitats within and around the Site.
- 5.2.4 Tree planting is to be in accordance with BS 4428:1989. New planting should favour locally sourced indigenous tree species, wherever possible. Planting of bare root stock shall take place in October to March in favourable planting conditions – soil shall be free from frost and waterlogging.
- 5.2.5 Proposed tree planting includes a mixture of transplants and larger feathered/individual stock at a rate of 1 plant / 4m² to promote a diverse initial plant matrix. Cultivate all areas shown for planting to a depth of 300mm and level. Feathered/individual trees to be planted in excavated pits at least 150mm wider and deeper than full spread of roots. Incorporate compost as 50% of backfill material, and re-firm through treading to ensure good contact with roots. Support feathered trees with 2no. 75mm diameter tree stakes cut 600mm above ground level and 2no. adjustable tree ties. Protection provided by

Recycled HDPE photodegradable mesh guards 0.6m high x 150-180mm diameter or greater to suit diameter of tree, ensure protection methods do not restrict natural movement or growth.

- 5.2.6 Transplants to be notch planted and supported and protected by a PP photodegradable tube guard guards 0.6m high x 50mm diameter or greater to suit girth of shrub/tree, supported by 900mm bamboo cane inserted 300mm below ground level.

Maintenance Strategy

- 5.2.7 All existing and proposed trees 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 & Safety legislation, and relevant best practice.
- 5.2.8 The retention of mature trees will be secured by the continued application of “minimal safety management” rules. If possible, works should be undertaken outside the birds nesting season (nesting season – March to August inclusive). If this is not possible 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 licenses obtained to ensure legal compliance and/or secure appropriate or necessary mitigation.
- 5.2.9 '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.
- 5.2.10 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.
- 5.2.11 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.
- 5.2.12 Any trees that fail to establish within the first 5 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, species mix may be revised in agreement with the Local Planning Authority.
- 5.2.13 Any dead, diseased or damaged branches shall be pruned back to the main stem or suitable side shoot or removed.
- 5.2.14 Mulched areas around proposed trees shall be maintained for the first 5 years to a minimum depth of 10cm.
- 5.2.15 Trees and Woodland shall be subject to annual monitoring by an appropriately experienced ecologist.
- 5.2.16 At the beginning and end of each growing season all stakes' ties and 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 stakes, ties and plant protection shall be removed from Site after 3 years, unless still required to ensure the successful establishment of planting (e.g., newly planted trees to replace failures).
- 5.2.17 Watering is to be undertaken as necessary to allow healthy establishment of plants, particularly during prolonged periods of hot, dry weather.

Table 5.1: Maintenance Tasks – Trees and Woodland

Task:	Frequency	Timing
Water all proposed planting to ground capacity to ensure successful establishment.	As required	Years 1 - 3
Inspect and adjust tree stakes, ties and plant protection including loosening to avoid damage.	Annually	Years 1 – 3 October - 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 - 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 – 3 April & 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 stakes, ties and plant protection once no longer required for establishment of proposed planting	After 3 years	n/a
Replace any planting that fails to establish within the next available planting season in accordance with the original specification.	Annually	October - April
Selective felling and thinning to improve structural diversity of woodland.	Every five years	n/a
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 (as set out in the BIA)	Annually	n/a

5.3 Component 2: Grassland

Component 2a: Meadow Grassland

- 5.3.1 6.85 ha of land is proposed as meadow. This includes parts of Specific Landscape Management Area 3, Hedgerow Buffer Corridor. In these areas, existing grassland will be re-seeded and managed using hay meadow-style management (mowing and removal of arisings in late July/August / aftermath grazing in autumn, using an appropriate seed mix, such as Emorsgate EP1, EM2 and EM8 as shown on the Landscape Strategy or equivalent).
- 5.3.2 Preparation and seeding to be carried out in accordance with a detailed specification as advised by BSG Ecology and supplier's recommendations. The initial vegetation establishment would be achieved by tight / hard grazing of the sward over winter, followed by harrowing the grass heavily and broadcasting a seed mixture using a heavy seed rate (c. 6g/m²) to ensure a seed bank is established in the soil. This process will need to be repeated in years 3 and 5 to ensure the establishment of diverse vegetation as it is likely the sward mix will fluctuate over the first few years of establishment.
- 5.3.3 The timings for establishment would be for grazing from October to March and seed spreading in April/May or September/October immediately following cultivation.

Component 2b: Existing Grassland outside perimeter Fence

- 5.3.4 53 ha of existing grassland outside perimeter fence to be allowed to develop a taller sward, with some tussocks allowed to develop in the margins; cut no more than once annually. This includes parts of

Specific Landscape Management Area 1 Nantanog SSSI, where some gorse clearance is required to maintain and open habitat.

Component 2c: Existing Grassland within Perimeter Fence

- 5.3.5 182ha of grassland within the perimeter fence will be retained grassland between the panels – this is not new habitat. It will be managed by grazing or mowing, or a combination of both.

Component 2d: Grassland within Specific Management Area 2, Pond 11

- 5.3.6 A 50m wide buffer between the perimeter fence and Pond 11 to provide an open area of grassland which will be grazed/mown on a regular rotation, to maintain short-sward, open habitat conditions suitable for grazing wildfowl. This is not new habitat.
- 5.3.7 Ground disturbance works in the vicinity of Pond 11 and Fields 31, 32 and 33 to be avoided in summer months (between April and late September) to avoid disturbance to wintering birds. For the same reason management of grassland in these areas to be taken in late summer (between the start of August and the end of September).

Component 2e: Grassland within Specific Management Area 4 – Scheduled Monument Buffer

- 5.3.8 Cors-y-Bol Scheduled Monument buffer – existing grassland to be maintained as a short sward, cut six times annually. This is not new habitat.

Component 2f: Aquatic Vegetation on the edge of Habitat Ponds

- 5.3.9 Habitat Ponds, targeted for Great Crested Newt (GCN) mitigation to be planted with a 2m margin of Emorsgate EP1 Pond Edge Mixture or similar and managed to provide variation in structure and a suitable habitat for GCN. Establishment and seeding as per Component 2a Meadow Grassland above.

Grassland Maintenance Strategy

- 5.3.10 To avoid an impact on breeding birds in a few specific areas of the Site, ground works to take place only outside the nesting period, between late February and August inclusive. Precautionary, pre-construction surveys will be carried out where necessary to determine which areas of the Site this approach will apply to. The existing grazing regime will be continued until construction work commences to avoid the risk of creating more favourable conditions for ground nesting birds, through changes in sward length and structure.
- 5.3.11 The habitat around the ponds (as shown on the Landscape Strategy Plan) will less frequently managed grassland with patchy scrub and shall be managed to provide habitat for amphibians. Regular cutting in these areas will not be carried out. The aim of grassland management in these areas will be to allow formation of tussocks and varied vegetation structure, and to maintain open, unshaded conditions, with scrub forming a minor habitat component (i.e. up to c. 25-30% at most). The need for vegetation management in these areas will be based on recommendations from monitoring visits (to be reviewed every 2-3 years); vegetation management will be carried out only in coordination with the ECoW/under an ecological watching brief; and will need to take into account legal protection afforded to great crested newt.
- 5.3.12 In the first and second year after seeding, resist cutting meadow areas (Component 2a) until mid to late summer (Early August). Maintain to a short sward (50mm) by grazing or mowing until March, Dig out residual perennial weeds such as docks.
- 5.3.13 Thereafter management of meadow grassland (Component 2a) will require a single cut of the sward for hay/ forage in July onwards. A broad margin of at least 2 m wide around outer margins (i.e. boundary lines) of the grassland areas will remain unmown. To be followed by a second cut in August / September if growth is heavy. Aftermath grazing (following cut) to keep sward in check with ongoing winter grazing before resting from February onwards annually. Grazing level should be suitable for a conservation grazing approach. Application of inorganic fertilisers will be avoided.

- 5.3.14 Thereafter, grassland will be cut in accordance with Table 5.2 below.
- 5.3.15 Water well during periods of prolonged periods of dry weather.
- 5.3.16 Arisings will be left in situ for a minimum of 2 to 3 days after mowing. For 'hay' cuts leave in situ for 1-7 days to allow seed to shed.
- 5.3.17 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. Should they become established, remove any invasive or exotic species annually in autumn or winter, ideally by hand, to ensure growth of other species is not suppressed². 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 unless prior agreement has been obtained from the Environment Agency.
- 5.3.18 Annual monitoring and reporting by an appropriately experienced ecologist shall include an assessment of the establishment of the areas of wildflower grassland as per BSC Ecology recommendations.
- 5.3.19 Where the meadow sward fails to establish or dies out, or where the level and range of grassland species is poor, measures will be undertaken to resolve any underlying problems. Areas will be re-sown following implementation of other remedial works. It is expected that following establishment, species diversity will naturally increase with time.
- 5.3.20 Monitoring of meadow grassland to be carried out mid-June to early July, prior to cutting, in years 2, 3, 5 and 8 and thereafter every 5 years and remedial action taken where required. Monitoring to be agreed with BSG Ecology and include sward height (variability) % cover of bare ground; % cover of scrub, % cover of bracken, evidence of physical damage to the grassland such as from fire damage, compaction, or inappropriate grazing levels, the presence of any injurious weeds and invasive, non-native plant species.

Table 5.2: Maintenance Tasks - Meadow Grassland

Task:	Frequency	Timing
Water during prolonged periods of dry weather	Year 1	As required
Mow regularly to control weed growth	Year 1-2	April-September
Hand pull or spot treat weeds	Yearly	April-September
Cut areas proposed for Meadow (Emorsgate EM2), Meadow for Wetlands Emorsgate (EM8) and Wet grassland (EP1) where water levels no more than 50mm below the surface. Rotational cut of one third of all areas every year. (Component 2a)	A broad margin of at least 2 m wide around outer margins (i.e. boundary lines) of the grassland areas will remain unmown. After flowering carry out hay cut mid-late summer, mow or graze new growth (at a level suitable for a conservation grazing approach) to later Autumn/ Winter-resting from February onwards.	July or August
Cut areas proposed for Existing Grassland outside perimeter Fence (Component 2b)	Annually	July or August
Cut areas proposed for Existing Grassland within Perimeter Fence (Component 2c)	Grazed/mown on a regular rotation, to maintain short sward to prevent shading and coverage of solar panels and security features	As required
Cut Grassland within Specific Management Area 2, Pond 11 (Component 2d)	Grazed/mown on a regular rotation, to maintain short sward	As required

² No invasive or exotic species currently on Site - if found to be present those on Schedule 9 e.g. Japanese knotweed are strictly controlled and specialist contractors are likely to be required to remove.

Task:	Frequency	Timing
Cut Grassland within Specific Management Area – Scheduled Monument Buffer (Component 2e)	Six times annually	April-September
Cut back pond edge vegetation of proposed habitat ponds (planted with Emorsgate EP1) in wedge shape (like slice of cake) (Component 2f)	In rotation every 2-3 years	September - November
Remove any litter or debris.	Bi-annually	Any
Preparation of Annual Monitoring Report	Annually	n/a

5.4 Component 3: Hedgerow & Scrub

- 5.4.1 Hedgerows are national (Section 41, NERC Act 2006) Habitats of Principal Importance and it is recommended that these are retained and enhanced where possible for their intrinsic landscape and biodiversity value and as part of an extended Green Infrastructure and habitat corridor network.
- 5.4.2 There 4,304m of proposed hedgerow on the Site as identified in the Landscape Strategy Plan. They include a range of locally appropriate native species - blackthorn, hawthorn, wild cherry, field maple, spindle, elder, oak, ash, sycamore, and hazel, with a number of other herb species also present. Existing hedgerow for retention will be protected in accordance with BSG Ecology recommendations, the AIA and BS 5837: 2012.
- 5.4.3 The Proposed Development includes 1.69ha of native scrub planting, using locally appropriate species, located around the edges of the northern parts of the Site.
- 5.4.4 Existing native hedgerows and Cloddiau³ 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 two thirds of the hedgerow every three years, with a third left uncut for up to 9 years, and so on in a cycle. The minimum dimensions for cutting are 3m in height and 2m in width. Proposed hedgerow will comprise native, biodiverse hedgerows and will contribute to the mosaic of habitats within the Site and provide enhanced habitat connectivity. Both existing and proposed hedgerow will also contribute to the wider landscape setting of the Proposed Development, and to landscape character assessment objectives.
- 5.4.5 Hedgerows to be pit planted in a deep 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 to be backfilled with an appropriate excavated topsoil/compost mix. New hedgerow to be planted in double staggered rows at 0.5m centres.
- 5.4.6 Where existing hedgerow is to be gapped up or reinforced, hand dig only with care to avoid damaging existing planting - not severing any roots larger than 2.5cm in diameter. No herbicide to be used in proximity to existing vegetation. Hedgerow reinforcement to comprise planting 0.5m to the back of existing vegetation wherever possible. Fill any gaps in existing hedgerows larger than 0.5m.
- 5.4.7 Transplants, cuttings, and seedlings to be protected with PP photodegradable tube guards 0.6m high x 50mm diameter or greater to suit girth of shrub/tree, supported by 900mm bamboo cane inserted 300mm below ground level.
- 5.4.8 Container-grown shrubs to be protect by recycled HDPE photodegradable mesh guards 0.6m high x 150-180mm diameter or greater to suit diameter of shrub, supported by 900mm timber stake inserted 300mm below ground level. Ensure protection methods do not restrict natural movement or growth.

³ Cloddiau or "clawdd" walls are stone faced earth banks, usually with a hedge on top and sometimes with a ditch on one side.

- 5.4.9 Scrub planting to be installed with rabbit protection, in the same method as hedgerow plants. Notch plant bare root transplants in rows on a 2.0m grid. Hand dig with care in proximity to existing trees and do not sever any roots larger than 2.5cm in diameter.

Maintenance Strategy

- 5.4.10 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 3 years after planting.
- 5.4.11 Hedgerows shall be pruned on one side per year alternating on a 2 or 3-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.
- 5.4.12 All scrub planting to be thinned and trimmed on a 3-year rotational cycle to promote new growth. Height of planting to be maintained between 1 and 3m and as necessary to prevent overshadowing of panels.
- 5.4.13 Hedgerow and scrub shall be subject to annual monitoring by an appropriately experienced ecologist.

Table 5.3: Maintenance Tasks – Hedgerow & Scrub

Task:	Frequency	Timing
Water all proposed planting to ground capacity to ensure successful establishment.	As required	Years 1 – 3
Inspect and adjust tree stakes, ties and plant protection including loosening to avoid damage.	Annually	Years 1 – 3 October - 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 – 3 March
Check for root firmness and upright alignment of planting after high winds, frost heave and in spring and autumn until trees are wind firm.	Bi-annually	Years 1 – 3 April & 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 3 years	n/a
Replace any planting that fails to establish within the next available planting season in accordance with the original specification.	Annually	October - 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 scrub to 2m height across half of site on a 2-year rotational cycle.	Annually	March

Task:	Frequency	Timing
Two thirds of the hedgerows shall be cut on a 3-year rotation in February, and maintained a minimum height of 2.5 - 3m to promote bushy growth while providing continued habitat and foraging opportunities for wildlife. One third of the hedgerows shall be left uncut for up to 9 years, after which it will be cut every three years for either 9 or 18 years. Hedgerow trees shall be encouraged to develop to full maturity.	Annually	February
In the interests of wildlife, hand weeding, where feasible, 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 - August
Inspection and preparation of Annual Monitoring Report	Annually	n/a

5.5 Component 4: Watercourses and Waterbodies

- 5.5.1 Ponds and watercourses are national (Section 41, NERC Act 2006) Habitats of Principal Importance.
- 5.5.2 Existing drainage ditches and ponds will be retained and protected from damage during construction through the establishment of operational buffers as recommended by BSG Ecology and BS 5837: 2012
- 5.5.3 14 new ponds will be created in clusters of 2-3 ponds (equating to 0.23ha of pond habitat) to detailed design agreed with BSG Ecology for optimised habitat creation. These will be located adjacent to areas of less frequently managed grassland and scrub. Hibernacula will be created nearby to provide additional habitat for reptiles and amphibians. Marginal / riparian planting around pond margins will include c. 0.16ha of additional habitat.

Maintenance Recommendations

- 5.5.4 Confine movement channels for maintenance to the minimum number of routes to avoid excessive trampling of existing habitat.
- 5.5.5 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 unless prior agreement has been obtained from Natural Resources Wales.
- 5.5.6 With respect to pond, monitor need for de-silting and clearance of leaf-fall on a 5-year basis and undertake as required. Remove deep bottom muck, silt or dense stands of dominant vegetation to diversify habitat and prevent ecological succession.
- 5.5.7 In order to maintain a drainage of the Site, carry out routine de-silting and clearance of drainage ditches on a 3-year rotational basis. Ensure any connecting culverts are free from vegetation, silt and detritus.
- 5.5.8 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.
- 5.5.9 Watercourses and Waterbodies shall be subject to annual monitoring by an appropriately experienced ecologist.

5.5.10 A summary of maintenance tasks and their frequency is set out below:

Table 5.4: Maintenance Tasks – Watercourses and Waterbodies

Task:	Frequency	Timing
Monitor pond water quality and take appropriate preventative/remedial action.	Annually	n/a
Manual removal of invasive/exotic species.	Annually	October - April
Pond de-silting and clearance of leaf-fall. Remove no more than 50% of bottom muck, silt or dense strands of dominant vegetation within any calendar year.	Every 5 years	September - October
Drainage ditch clearance.	Every 3 years	September - October
Remove any litter or debris.	Bi-annually	Any
Inspection and preparation of Annual Monitoring Report (as set out in the BIA)	Annually	n/a

5.6 Component 5: Hibernacula, Bat and Owl Boxes

- 5.6.1 The landscape strategy promotes additional nesting and foraging habitat for birds and other wildlife including microhabitat features for invertebrates and hedgehogs, and hibernacula around ponds. A minimum of 20 bird and 20 bat boxes shall be placed in suitable trees across the site. The exact location and position to be determined on Site following a Site walk-over by a suitably qualified ecologist and the contractor.
- 5.6.2 The specific design of boxes to be used shall be durable, designed for external use and approved by an appropriately experienced ecologist. Hibernacula to be formed from site-won material and be composed of stone piles, 80% covered with grass turfs.

Maintenance Strategy

- 5.6.3 Hibernacula, bat and owl boxes shall be subject to biannual monitoring for the first 10 years by an appropriately experienced ecologist, and every 5 years thereafter.
- 5.6.4 Monitoring shall involve two visits a year; once in the summer (June or July) and the autumn (September or October, during which the bat boxes shall be inspected and cleaned). The results shall be presented in an annual monitoring report. This management report shall provide feedback into ongoing management protocols, such that management can be altered, where practical.

Table 5.5: Maintenance Tasks – Hibernacula, Bat and Owl Boxes

Task:	Frequency	Timing
Inspection of Bat and Bird Boxes	Bi-annually	June/July and September/October
Cleaning of Bat and Bird Boxes (if required)	Annually	September / October
Preparation of Annual Monitoring Report	Annually	n/a

5.7 Component 6: Proposed Fencing & Hard Surfacing

5.7.1 The Proposed Development includes security fencing around the perimeter of the proposed solar panels. Access Roads through the Site will be formed of crushed aggregate.

Maintenance Strategy

5.7.2 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.

5.7.3 To achieve these objectives, the following measures will be undertaken:

Table 5.6: Maintenance Tasks – Fencing and Hard Surfacing

Task:	Frequency	Timing
Check and report and 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. Clean away any accumulated mud to prevent tracking onto adjacent roads.	Every 3 years	September

6 General Maintenance and Management Tasks

6.1 Overview

- 6.1.1 For woodland planting during years 1-5 or until canopy closure, new planting shall be maintained by annual visits.
- 6.1.2 All plants shall be checked and if necessary, firmed up in the ground.
- 6.1.3 Any damaged shoots or branches shall be pruned off using secateurs.
- 6.1.4 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.
- 6.1.5 The Contractor shall remove any dead, dying, or diseased plants, which 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 shall be replaced during the next planting season.
- 6.1.6 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.
- 6.1.7 The landscape contractor shall clean and make good all hard standings, fencing, planting areas, highways, and footways after each visit. No stockpiles to be left on Site.
- 6.1.8 Plant material to conform to the National Plant Specification. Plant handling and planting operations to be in accordance with HTA 'Handling and Establishing Landscape Plants', Parts I-III.
- 6.1.9 Soil conditioner: For proposed woodland and tree planting areas use sanitized and stabilised peat-free compost to BSI PAS 100. Apply 75mm depth even coverage and incorporate into topsoil during cultivation operations, to a minimum depth of 150mm. Compost to be Compost Association certified or conforming to the specification from an approved supplier.
- 6.1.10 Mulch planting beds with matured coniferous bark, with an even particle size between 5-35mm, to 100mm minimum depth over weed-free soil after completion of planting and watering operations.

6.2 The Use of Pesticides & Other Hazardous Substances

- 6.2.1 No pesticides or herbicides to be used.
- 6.2.2 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 Environment Protection Act 1990.

- 6.2.3 It is the Contractor's responsibility to ensure that he is fully conversant with the requirements of the foregoing legislation and other relevant Codes of Practice, British Standards, rules, guidelines, or directives that relate to the use of hazardous materials.
- 6.2.4 All manufacturers' recommendations relating to application, storage, mixing and other safety precautions must be strictly adhered to, in the interests of health and safety.

6.3 Litter Removal

- 6.3.1 The Contractor shall ensure that all of 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.
- 6.3.2 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.
- 6.3.3 The Contractor shall take particular care when conducting 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.
- 6.3.4 All litter and debris shall be removed off site to an authorised tip.
- 6.3.5 This shall be conducted in accordance with the Code of Practice on Litter and Refuse issued under Section 89 of the Environment Protection Act (1990).

7 Implementation and Management Structure

- 7.1.1 This Outline 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.
- 7.1.2 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.
- 7.1.3 This LEMP will be implemented fully and wholly by the applicant.
- 7.1.4 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.
- 7.1.5 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 respond 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.

8 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.	6	6	6	6	6
Check and report defects with fencing - remedial works carried out at the earliest opportunity.	12	12	12	12	12
Inspection of Bat and Bird Boxes	2	2	2	2	2
Water (Irrigate) meadow grassland areas.	As required	-	-	-	-
Water all proposed hedgerow, scrub, and woodland planting to ground capacity.	As required	As required	As required	-	-
Check root firmness and upright alignment of trees.	2	2	2	-	-
Maintenance of a 1m diameter weed-free mulched area to the base of each proposed tree.	6	6	6	6	6
Inspect and adjust tree stakes, ties and plant protection including loosening to avoid damage	1	1	1	-	-
Remove all stakes, ties and plant protection once no longer required for replacement planting.	-	-	1	-	-
Monitor establishment of meadow grassland noting sward height, bare ground, scrub or bracken coverage, physical damage or presence of any injurious and invasive non-native plant species. ⁴	-	1	1	-	1
Cut Meadow Grassland – General EM2, Wet EM8 and dry areas of Pond Edge EH1	≤4	≤4	≤4	≤4	≤4
Hand pull weeds in meadow grassland.	1	1	1	1	1
Cut areas of grassland outside perimeter fence	1	1	1	1	1
Cut areas of grassland inside perimeter fence (or maintain as short sward though grazing)	≤12	≤12	≤12	≤12	≤12
Cut areas of grassland within Specific Management Area 2, Pond 11 (or maintain as short sward though grazing)	≤12	≤12	≤12	≤12	≤12
Cut back pond edge vegetation of proposed habitat ponds (planted with Emorsgate EP1)	1	1	1	1	1
Strim back any weed growth on hard surfacing.	4	4	4	4	4
Replace any planting that fails to establish within the next available planting season.	1	1	1	1	1
Check root firmness and upright alignment of hedgerows.	2	2	2	-	-

⁴ To meet good condition, the grasslands must achieve the following criteria:

- neutral grassland, with varied sward height, and at least 10 species/m² on average across the Site (the appearance and composition of the vegetation will need to closely match the characteristics of “other neutral grassland” (see UKHab definition for g3c grassland), to distinguish it from “modified grassland” (vegetation dominated by few fast-growing grasses on fertile, neutral soils, frequently characterised by an abundance of rye-grass *Lolium* sp. and white clover *Trifolium repens*)).
- Sward height will be varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.
- Cover of bare ground between 1% and 5%.
- Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.
- An absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.

Task:	Number of Annual Operations				
	Year 1	Year 2	Year 3	Year 4	Year 5
Undertake routine maintenance of hedgerow/scrub.	1	1	1	1	1
Cut hedgerows to a minimum height of 3m and 2m width on a three-year rotation. One third to be left uncut for 9 years on rotation.			1		
Removal of non-desirable woody species and weeds from hedgerow/scrub planting.	1	1	1	1	1
Prune hedgerows on one side per year, alternating on a 2 or 3-year rotation	1	1	1	1	1
Thin and reduce height of scrub to 2m height across half of site on a 2-year rotational cycle.	1	1	1	1	1
Monitor pond water quality and take appropriate preventative/remedial action, including removal of invasive exotic species.	1	1	1	1	1
Cleaning of Bat and Bird Boxes	-	1	-	1	-
Preparation of Annual Ecological Monitoring Report	1	1	1	1	1
Maintain hard standing.	-	-	1	-	-
Safety inspections and report on condition of trees by arboricultural advisor.	-	-	1	-	-
Drainage ditch clearance.	-	-	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.	-	-	-	-	-
Pond de-silting and clearance of leaf-fall.	-	-	-	-	1
Review of LEMP by Operations Manager and consultant Landscape Architect & Ecologist as appropriate for ongoing management of scheme.	-	-	-	-	1

Table 8.2: Annual Maintenance & Management Schedule Years 6 - 25

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	Year 21	Year 22	Year 23	Year 24	Year 25
Remove any litter or debris from the Site.	2	2	2	2	2	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	12	12	12	12	12
Inspection of Bat and Bird Boxes	1	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1	-	-	-	-
Monitor establishment of meadow grassland noting sward height, bare ground, scrub or bracken coverage, physical damage or presence of any injurious and invasive non-native plant species	-	-	1	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1	-	-
Cut Meadow Grassland – General EM2, Wet EM8 and dry areas of Pond Edge EH1	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4
Hand pull weeds in meadow grassland.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cut areas of grassland outside perimeter fence	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cut areas of grassland inside perimeter fence (or maintain as short sward though grazing)	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12

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	Year 21	Year 22	Year 23	Year 24	Year 25
Cut areas of grassland within Specific Management Area 2, Pond 11 (or maintain as short sward though grazing)	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12	≤12
Cut back pond edge vegetation of proposed habitat ponds (planted with Emorsgate EP1)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Strim back any weed growth on hard surfacing.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Undertake routine maintenance of hedgerow/scrub.	1	1	1	1	1	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/scrub planting.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cut hedgerows to a minimum height of 3m and 2m width on a three-year rotation. One third to be left uncut for 9 years on rotation.	1 (2/3)			1 (all)			1 (2/3)			1 (2/3)			1 (all)			1 (2/3)			1 (2/3)	
Thin and reduce height of scrub to 2m height across half of site on a 2-year rotational cycle.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Monitor pond 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	1	1	1	1	1
Cleaning of Bat and Bird Boxes	1	1	1	1	1	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	1	1	1	1	1
Top up and recompact any granular fill to ensure no puddles or ruts form on areas of hard standing. Clean away any accumulated mud.	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-	-
Safety inspections and report on condition of trees by arboricultural advisor.	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-	-
Works recommended following inspection.	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-	-
Drainage ditch clearance.	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-	-	1	-	-
Selective felling and thinning to improve structural diversity of woodland.	-	-	-	-	1	-	-	-	-	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	-	-	-	-	1
Pond de-silting and clearance of leaf-fall.	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1
Review of LEMP by Operations Manager and consultant Landscape Architect & Ecologist as appropriate for ongoing management of scheme.	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-