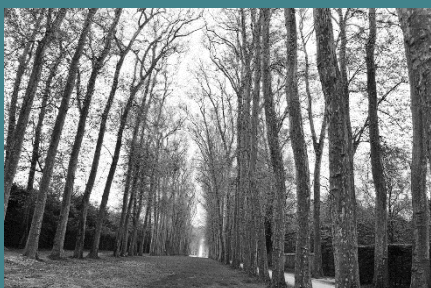


FPCR | environment
& design



Landscape and Ecological Management Plan

Client

Bloor Homes

Project

Normandy Way,

Hinckley

Date

September 2025

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Rev	Issue Status	Prepared/Date	Approved/Date
-	Issue	SE / 21.08.25	ET/ 16.09.25

1.0 INTRODUCTION

- 1.1 The following Landscape and Ecological Management Plan (LEMP) has been prepared by FPCR Environment and Design Ltd. (FPCR) on behalf of Bloor Homes to facilitate a residential development (central OS grid reference: SP 407 942).
- 1.2 This LEMP will outline the management required in order to meet the target conditions for habitats to ensure a biodiversity net gain in both habitat and hedgerow units.

Planning status and condition wording

- 1.3 Bloor Homes have submitted a Reserved Matters application for Phase 4 (23/00574/REM). The proposals for Phase 4 are shown on the Proposed Site Layout (Ref: EM100-LS-021j (Site Landscaping overview Ph4) Bloor Homes).
- 1.4 This LEMP was produced to discharge planning condition 19 of permission 23/00574/REM, which states:

"No development shall take place (including ground works or vegetation clearance) until a Landscape and Ecological Management Plan (LEMP) Has been submitted to and approved in writing by the LPA. The LEMP shall outline the management in order to deliver the target conditions for habitats to ensure a biodiversity net gain in both habitat and hedgerow units. The LEMP shall include the following details:

- A) Description and evaluation of the features to be created/managed*
- B) Aims and objectives of management*
- C) Appropriate management options for achieving aims and objectives*
- D) Prescriptions for management options*
- E) Work schedule*
- F) Species / seed mixes to be planted / sown.*
- G) Ongoing monitoring and remedial measures.*

The approved LEMP shall be adhered to and implemented for a minimum of 30 years in accordance with the approved details, unless otherwise agreed in writing by the LPA."

Site Location and Proposals

- 1.5 The Site is located to the northwest of Hinckley, and comprises a modified grassland field in poor condition, developed land; sealed surface, ruderal/ephemeral habitat in poor condition, and two native hedgerows, with H1 in good condition, and H2 in moderate condition. This LEMP should be read in conjunction with Biodiversity Net Gain Assessment, completed by Ecology Solutions, June 2023, and detailed landscape plans and schedules (ref: EM100-LS-14n, 017q, 018q, 021m, 023h), as submitted with planning application 23/00574/REM.
- 1.6 Proposed habitats include modified grassland in poor and moderate condition, other neutral grassland in moderate condition, ruderal/ephemeral habitat in poor condition, urban trees in moderate condition, and introduced shrub. H1 is proposed to be enhanced to good condition

species-rich native hedgerow, and a further 53m of good condition species-rich native hedgerow to be created.

Summary of Biodiversity Net Gain (BNG)

- 1.7 The site has a BNG baseline score of 8.86 area habitat units and 3.03 hedgerow units. No watercourse units are included within the baseline. Post intervention, the Site will deliver a total of 10.20 area habitat units, and 5.83 hedgerow units, resulting in an overall 15.15% area habitat gain, and 92.03% hedgerow gain.

2.0 ROLES AND RESPONSIBILITIES

- 2.1 As the developer and landowner, Bloor Homes are ultimately responsible for meeting the commitments made in this document, the implementation of which will be overseen by a suitably qualified person or persons, appointed by Bloor Homes.
- 2.2 All management tasks outlined within this document will either be undertaken by Bloor Homes or by a nominated Management Company, with ultimate responsibility falling to be undertaken by Bloor Homes.
- 2.3 Retained and newly created habitats will be managed and monitored throughout the period of this Plan (minimum of 30 years) to ensure their ecological diversity is maintained in the long term in tandem with their safety and use. Feedback from Site monitoring should be applied to appropriate refinement and / or revision of this Plan and agreed with a suitably qualified ecologist.
- 2.4 All ecological monitoring will be undertaken by a suitably qualified and experienced ecologist on behalf of Bloor Homes or their nominated Management Company. Similarly, a suitably qualified and experienced arboriculturalist will undertake any required arboricultural monitoring. Specialised contractors will be consulted regarding invasive non-native species (INNS) control, where necessary.

3.0 MONITORING AND REVIEW

- 3.1 Management of created habitats on Site will run for a period of 30 years following initial creation (year 1). The habitat creation will be monitored annually for the first five years to ensure effective establishment. Following this, towards the end of each five-year period the management will be reviewed and amended as necessary to provide a five-year rolling programme.
- 3.2 Throughout the period of the scheme, the achievement of management objectives through the application of detailed prescriptions should be viewed as a dynamic process, responding to the establishment and development of the habitats and species.
- 3.3 The progress of habitat creation will therefore be monitored, and management prescriptions reviewed and altered where necessary to ensure habitat targets are met. The HMMP should be informed by updated and detailed surveys of the habitats to refine the identified objectives, targets and prescriptions as necessary.
- 3.4 The aims of future on-going management should continue to maintain the target habitats as set out herein.

4.0 LEGISLATION AND POLICY

4.1 The NPPF (2023) in particular seeks to ensure that the planning system contributes to and enhances the natural and local environment, protect and enhance biodiversity and geodiversity by:

- "180. d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- 185. b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."

5.0 OBJECTIVES

5.1 The following strategic objectives are set out to provide a steer for the management objectives and prescriptions including:

- to enhance biodiversity throughout the site and ensure an overall net biodiversity gain following completion of development; and
- to provide measurable and achievable targets appropriate to each habitat to ensure conditions are met as set out in the Management Target tables below in accordance with Defra Guidance¹.

6.0 GENERAL MEASURES

6.1 The following general measures should be followed:

- Native species of local provenance should be used. All planting is to be true to name and free from pests, diseases, discoloration, weeds, fungus and physiological disorders.
- All planting works should take place in the first available planting season.
- Planting is to remain materially undamaged, sturdy, healthy and vigorous, planted upright or well balanced with best side to front. Trees and shrubs are to be of good shape and without elongated shoots, grown in a suitable environment and hardened off before being delivered to the site.
- All planting will be watered sufficiently to ensure that the full depth of topsoil is wetted. Water will be applied evenly and without damaging or displacing plants or soil. Watering will continue as necessary to ensure the successful establishment and continued thriving of planting.
- If water supplies are restricted or likely to become restricted by emergency legislation, planting will not be carried out until instructed. If planting has been carried out, instructions will be obtained on watering.
- Bare root deciduous planting shall be carried out from late October to late March; herbaceous plants (including aquatic and marginal) shall be carried out from

¹ Defra (2023) Statutory Biodiversity Metric-Technical Annex 1: Condition Assessment Sheets and Methodology. Available from Statutory biodiversity metric tools and guides - GOV.UK (www.gov.uk)

September/October or March/April. Container grown plants will be planted at any time of year if ground and weather conditions are favourable. Bare root deciduous planting will be carried out only during suitable ground and weather conditions. Planting shall not be carried out in waterlogged or frozen ground

- Tree and shrub planting will be protected from rabbits with spiral guards, as conditions on site require. These will be removed once established.
- Any tree works are to be undertaken only by a suitably skilled and qualified arboriculturalist.
- Grassland seed mix is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture in the soil. Moisture may be supplied artificially by watering but must be thorough enough to penetrate at least 100mm and continued after sowing if dry weather follows. Areas to be sown should be first ploughed or rotovated and raked or harrowed to produce a medium fine, firm tilth. Fertiliser will not be applied at any point as this will lead to dominance of nutrient loving species such as broad-leaved grasses, nettles and docks.

7.0 HABITAT MANAGEMENT PRESCRIPTIONS

Overview of Habitat Retention Measures

- 7.1 There are no significant areas of habitat or hedgerow to be retained in their current condition.

Overview of Habitat Creation/ Enhancement Measures

- 7.2 The aims of habitat creation within the Site are:
- to enhance biodiversity throughout the site and ensure an overall net biodiversity gain following development.
 - to provide diversity of structure and species richness within newly planted habitats.
- 7.3 The following sections detail the management and habitat creation principles that will be employed to ensure that the created and retained habitats achieve the target conditions that have been set for the habitat types proposed.

Table 1: On-Site Habitat Creation and Enhancement

Area Habitat Type	Distinctiveness	Condition	Extent (hectares/ km)	BNG Habitat Units Created
Creation				
Other neutral grassland	Medium	Moderate	0.392	2.62
Urban tree	Medium	Moderate	1.274	3.89
Modified grassland	Low	Moderate	0.2556	0.89
Modified Grassland	Low	Poor	0.236	0.46
Species-rich native hedgerow	Medium	Good	0.053	0.41
Enhancement				
Native hedgerow - Species-rich native hedgerow	Low - Medium	Good	0.499	5.41

Habitat Creation

Other neutral grassland – moderate condition

- 7.4 In order to contribute towards the biodiversity value of the Site post development, 0.392 ha of herb rich other neutral grassland will be created within the Site. The aim for the creation and management of the neutral grassland is to work towards achieving floristically-diverse, identifiable neutral grassland community.

Creation

- 7.5 Soil testing will be undertaken on any proposed topsoil and subsoil in order to determine their appropriateness. Harris *et al* (2014)² defines the broad characteristics of substrates suitable for neutral grassland creation, with Critchley *et al.* (2002)³ establishing the characteristics of

² Harris, P., Brearley, A. & Doick, K.J. (2014) Best Practice Guidance for Land Regeneration Note 17: Lowland Neutral Grassland Creation and management in land regeneration. Forest Research. Forestry Commission.

³ Critchley, Chambers, Fowbert, Sanderson, Bhogal & Rose (2002). Association between lowland grassland plant communities and soil properties. Biological Conservation, 105: 199–215.

the target communities. Phosphorous limitation is critical for the creation of the target species rich neutral grassland communities; with that in mind, the substrate parameters for habitat creation should follow the below specifications:

- Available phosphorous between 4-12mg l⁻¹ (Calculated using the Olsen method), with 9.6mg l⁻¹ being the optimum for species rich grassland;
- A lower limit of 0.2% dried weight Total Nitrogen with a provisional upper limit of 0.3-0.7%;
- pH 5.5-6.5;
- A lower limit of 4% organic matter, with a provisional upper limit of 5-14%;
- Topsoil depth should not exceed 200mm; and
- Drainage: slow.

Seeding

- 7.6 Where the soil meets the requirements outlined above, it may be necessary to cultivate the area using suitable tillage equipment, such as a power harrow, to produce a suitable soil structure. The substrate will then require a suitable seedbed to be created using a suitable harrow or rotavator to create a fine tilth (<10mm aggregates).
- 7.7 Seed mix used will be Emorsgate EM 3 Standard General-Purpose Meadow Mixture (or similar approved) for the wildflower areas, and Emorsgate EM8 for SUDS grassland and will be sown either in spring or autumn (autumn sowing is often more successful for first year germination). The seed mix should be of local provenance, where available.
- 7.8 Seed will be sown following supplier's instructions. Sowing must be undertaken in still wind conditions when the soil is not saturated.

Management

- 7.9 Detailed management interventions and targets for the other neutral grasslands (moderate condition) are provided in Table 2, below.

Table 2: Other neutral grassland (moderate condition) management detailed methods

Action	Timing	Prescriptions
Establishment Management	Year 1	• The condition of the grassland should be reviewed within 6 months of seeding. • Any areas which have failed to establish should be re-seeded, during the appropriate season. • To control any flush of annual weeds, within the first year the grassland <u>may</u> require up to four cuts. As such, the created grassland should be monitored within the first year and if grass growth is considered to be vigorous a cut should be taken. This should be undertaken after late summer / early autumn. The sward length should ideally be kept at 100mm or below in the first year. • Cut material should be removed from the created grassland area and either taken off site or taken to a suitable composting area on-site. This should be located close to the grassland area to avoid the need of moving cut material long distances.

Action	Timing	Prescriptions
		Any residual perennial weeds such as docks should be dug out.
Subsequent Management	Year 1+	- Low input extensive management: - No artificial or organic manures to be applied; and - No herbicides to be applied with the exception of spot treatment of any undesirable or invasive species. - On-going management will involve 1-2 cuts per year after flowering in July (with late June- early August acceptable), removing arisings after they have dried. Once every four years, cut the grassland in late August - September to allow late flowering species to set seed. - If feasible, green hay produced from the cut should be spread over the habitat to increase floristic diversity. The cut material should then be removed after 3-5 days and could be gathered in a single location on-site away from watercourses/bodies and allowed to rot down naturally or removed from Site. 20% of grassland will be left unmown every year on rotation, in order to provide sward height variation. Where access is required through the grassland, close mown pathways of 1-2m can be maintained and also add to the structural diversity of the grassland. - Where wildflower cover is low in successive years use of conservation harrowing to create bare areas necessary to promote wildflower germination should be considered including addition of wildflower seed following harrowing. - If vigorous grasses begin to dominate, an autumn sowing of yellow rattle <i>Rhinanthus minor</i> following mowing/harrowing will be undertaken to reduce dominance of grasses. - Recreational impacts on the grassland will be monitored throughout the management period and if a negative influence is noted, then methods to limit or deter access will be considered. - As well as being monitored, assessed and managed throughout the Aftercare Management Period, at the end of this period, an assessment will be made of how well the grassland has established and the management prescriptions reviewed, as necessary.

Condition Assessment Rationale

- 7.10 Grassland to the east of Site is targeted at a 'Moderate' condition as it is expected that these areas achieve at least 5 criteria, including essential criterion A as shown in Table 3 below.

Table 3: Grassland Management Targets

Condition Assessment Criteria/ Objective	Management Intervention	Timing
		Moderate
1. The parcel represents a good example of its habitat type - with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to suboptimal species* which may be listed in the UKHab description).	- Creation of a herb rich neutral grassland community achieved through use of a suitable nutrient poor substrate and seeding with an appropriate species rich seed mix. - Ongoing management to obtain low fertility and maintain species composition.	By Year 7
2. Sward height is 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.	Mowing regime to create structural diversity.	By Year 2
3. Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.	- Regular monitoring and re-sowing of areas where necessary. - Where bare ground is below threshold in successive years, scarification by hand (on smaller areas) should be considered.	By Year 5
4. Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	Regular mowing regime to control encroachment.	By Year 5

Condition Assessment Criteria/ Objective	Management Intervention	Timing
		Moderate
3. Combined cover of species indicative of suboptimal condition* 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. If any invasive non-native plant species (as listed on Schedule 9 of WCA5) are present, this criterion is automatically failed.	- Where large patches of injurious weeds persist cutting in early spring is recommended with arisings removed straight away. - Use of weed wipes to treat persist pernicious weeds (occurring in successive years over 5%). - Where excessive and persistent physical damage evident use of fencing or hedging should be considered depending on cause and where deemed likely to be effective.	By Year 5
4. There are 10 or more vascular plant species per m ² present, including forbs that are uncharacteristic of the habitat type.	As per criterion 1.	N/A

*Species indicative of suboptimal condition for this habitat type include: creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris*. There may be additional relevant species local to the region and or site.

Urban trees – moderate condition

- 7.11 In total, 26 native and 85 non-native ornamental new individually planted trees are proposed across the Site. The trees will increase the diversity of tree species within the Site and provide a food source for fauna such as foraging birds and invertebrates.

Creation

- 7.12 Trees should be sought from a reputable supplier, and trees will be planted where there is sufficient space for them to grow to full maturity.
- 7.13 Any evidence of existing soil compaction will be remediated before planting to ensure the soil is able to support tree establishment and growth.
- 7.14 The planting pit dug will be a shallow square, larger than the root ball of the tree. The base of the planting pit will be broken up to encourage aeration to the depth of a garden fork prior to tree planting. Backfilling of soil will utilise existing excavated soils only with no compost or fertiliser application. Existing sub soils and topsoil should be kept separate during excavation, with the subsoil backfilled first before topping with topsoil. Lightly firm down the back fill, avoiding compaction.
- 7.15 It will be important to ensure the tree is not planted lower than the surrounding ground level. The aim of planting will be to ensure that the level that the tree base meets the soil level will be slightly above ground level, aiming for 25mm above.
- 7.16 After planting, water the tree with at least 20 litres of water.
- 7.17 Tree bases will be mulched using wood chippings or bark. Mulching will aim for a 1m diameter around the trees to prevent weed establishment. The depth of the mulch will be between 50-75mm.
- 7.18 Tree guards will be installed around establishing standards and whips to prevent them becoming browsed, and will be removed once established. Root barrier systems to be installed on trees situated near services or structures. Proposed trees within public areas to be either double staked for all trees <14cm girth or secured with underground guys for trees > 14cm girth.
- 7.19 Native tree of local provenance where possible will be planted between November and March, avoiding periods of inundation or prolonged ground frost. This will accord with BS 8545:2014.

Management

- 7.20 Detailed management interventions and targets for the individual trees are provided in Table 4, below.

Table 4: Individual tree management detailed methods

Action	Timing	Prescription
Establishment	Year 1	Trees will be watered regularly during their first year after planting when soil becomes dry. Plantings will be inspected quarterly through the first two growing seasons following planting, with any failures replaced in the next planting season, using native species only (and ideally with a tree of either the same species or similar species as those existing). This is to allow some flexibility and to avoid problems encountered with 'Same Tree Disease'. Weeds can be controlled around the bases of trees and shrubs using non-residual herbicide during establishment. The use of herbicides will be avoided thereafter unless strictly necessary. The aim will be to keep a 1-1.5m weed free diameter around the tree for the first 2 years after planting. Over-vigorous weeds such as brambles and nettles are to be removed.
Management after establishment	Year 2-5	Long-term tree management will include the regular checking and adjustment of tree supports by the Management Contractor. Any stakes or ties showing signs of damage should be removed and replaced as necessary and mulch levels will be topped up where necessary. Any stakes, which show movement or instability, shall be secured or repositioned. Tree stakes/ties/guards will be removed once trees have established well, and surfaces disturbed will be made good, with any resulting holes filled with suitable topsoil. Any branches requiring removal should ideally be cut leaving 50-80mm of main stem and ensuring that all cuts are clean to encourage healing and water shedding. Any diseased wood will be pruned back to sound wood. Any diseased wood will be removed from the site to discourage the further spread of disease. No burning will be undertaken on site. Non-diseased arisings may be placed within boundary areas to provide piles of dead wood or recumbent dead logs to maximise invertebrate and bryophyte biodiversity. Where possible standing dead wood will be left in-situ to provide additional dead wood habitats.

Condition Assessment Rationale

- 7.21 Trees within the site of Site are targeted at a 'Moderate' condition as it is expected that these trees will achieve at least 3 criteria as shown in table 5 below.

Table 5: Grassland Management Targets

Condition Assessment Criteria/ Objective	Management Intervention	Timing
		Moderate
The tree is a native species (or at least 70% within the block are native species).	Native trees are included within the landscape plans.	By Year 1

Condition Assessment Criteria/ Objective	Management Intervention	Timing
		Moderate
The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Trees are planted individually and in groups at suitable distances apart	By Year 1
The tree is mature (or more than 50% within the block are mature).	Not Targeted	n/a
There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Pruning and herbicide use will be limited to being used on an ad hoc basis.	By Year 5
Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	These features should be retained where suitable.	Year 2-5
More than 20% of the tree canopy area is oversailing vegetation beneath.	Trees planted within vegetated habitats	By year 1

Modified grassland – moderate and poor condition

Creation

- 7.22 Modified grassland targeted as poor condition within the development area (0.236 ha) will be turfed and be maintained as an amenity grassland within the residential area.
- 7.23 Modified grassland, targeted as moderate condition (2.556 ha), will be seeded with a flowering lawn mixture (Emorsgate EL1 Flowering Lawn Mixture or similar approved).
- 7.24 Following ground de-compaction and modelling works, the areas to be sown will be raked or harrowed to produce a medium fine tilth. All stones over 30mm in diameter will be removed.
- 7.25 Seeding to take place in Autumn (late August – October) or spring (April/early May) selecting a time when the soil is moist and can be worked and avoiding periods of extended drought. Sowing must be undertaken in still wind conditions when the soil is saturated but not flooded. After sowing, seed will be bedded in by rolling.
- 7.26 In order to discourage more robust plant species, it is recommended that no top-soil or fertiliser be used in the creation of the grassland.
- 7.27 Where grassland is to be seeded from bare soil, it will require a longer period to establish and may require reseeding in the second year.

Management

7.28 Detailed management interventions and targets for modified grasslands (poor and moderate condition) are provided in Table 5, below.

Table 6: Modified grassland (poor condition) management detailed methods

Action	Timing	Prescriptions
Establishment Management	Year 1	- The condition of the grassland should be reviewed within 6 months of turfing. - To control any flush of annual weeds, within the first year the grassland <u>may</u> require up to four cuts. As such, the created grassland should be monitored within the first year and if grass growth is considered to be vigorous a cut should be taken. This should be undertaken after late summer / early autumn. The sward length should ideally be kept at 100mm or below in the first year. - Cut material should be removed from the created grassland area and either taken off site or taken to a suitable composting area on-site. Any residual perennial weeds such as docks should be dug out.
Subsequent Management	Year 1+	- Low input extensive management: - No artificial or organic manures to be applied; and - No herbicides to be applied with the exception of spot treatment of any undesirable or invasive species. - Any areas which have failed to establish should be re-seeded or re-turfed, during the appropriate season.

Table 7: Modified grassland (moderate condition) management detailed methods

Action	Timing	Prescriptions
Establishment Management – Reseeded grasslands	Year 1 & 2	The sward will be kept short during the first year of establishment. This will entail a cut and collect approach, with arisings removed where possible without damaging the establishing sward. The sward length should ideally be kept at 100mm or below in the first year. Top the grassland during early spring to encourage perennial species propagation and control vigorous growth of ruderals/grasses. Additional cuts may be required through the growing season if ruderal / grass growth is vigorous and if ground nesting bird constraints allow; this should be undertaken after late summer / early autumn. Cut material should be removed from the created grassland area and either taken off site or taken to a suitable composting area on-site. This should be located close to the grassland area to avoid the need of moving cut material long distances. Any residual perennial weeds such as docks should be dug out.
Annual Management	Year 1+	Once established, the frequency of cuts shall remain flexible in order to accommodate growth rates and weather conditions. The grassland can be

Action	Timing	Prescriptions
		cut up to once per month through the growing season. If grass growth proves to be vigorous, the frequency of cutting can be increased, following consultation with the project ecologist, to two times per month, up to a maximum of 12 cuts per annum. All operations will be carried out using machinery appropriate to the task, cylinder, rotary or mulch mowers, with the cuts taken to a height of 50mm. All grass cuttings will be removed immediately to prevent soil enrichment detrimental to floristic diversity and to minimise thatching. Mowing operation will only be carried out during appropriate weather conditions avoiding sustained periods of rain, or heavy frost, snow, and waterlogging Once established, this grassland will be subject to a quarterly cut to 50mm, if sufficient material. This will help to reduce the vigour of the sward and facilitate the colonisation of additional plant species. Strimming should not occur with 100mm of tree stems or hedgerow. Instead, adjacent margins will be left unmanaged to provide a more structured habitat. Continue to dig out any residual perennial weeds such as docks. Fertiliser will not be applied to native grasslands at any point, as this will lead to dominance of nutrient loving species such as broad-leaved grasses, nettles and docks. Newly seeded areas should be protected from trampling or other disturbance. All litter, stones or other debris should be collected and removed immediately prior to grass cutting operations. Any areas damaged via recreation use etc. will be repaired via scarification and aeration, followed by reseeding and seedling protection.

Condition Assessment Rationale

- 7.29 Grassland within the development area is targeted at 'Moderate' and 'Poor' condition as it is expected that these areas achieve at least 3 and 5 criteria respectively, with the moderate condition areas passing essential criterion A as shown in Table 6 below.

Table 8: Modified grassland management targets

Condition Assessment Criteria/ Objective	Management Intervention	Timing	
		Poor	Moderate
There are 6-8 vascular plant species per m ² present, including at least 2 forbs. Note - this criterion is essential for achieving Moderate or Good condition.	Creation of a herb rich neutral grassland community where feasible, achieved through use of a suitable nutrient poor substrate and seeding with an appropriate species-rich seed mix. Ongoing management to obtain low fertility and maintain species composition.	N/A	By Year 7
Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Regular mowing regime to control encroachment.	By Year 5	By Year 5
Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Regular monitoring and re-sowing of areas where necessary. Where excessive and persistent physical damage evident use of fencing or hedging should be considered depending on cause and where they are deemed likely to be effective.	By Year 5	By Year 5
Cover of bracken <i>Pteridium aquilinum</i> is less than 20% is less than 5%.	Regular mowing regime to control encroachment.	By Year 5	By Year 5

Condition Assessment Criteria/ Objective	Management Intervention	Timing	
		Poor	Moderate
If any invasive non-native plant species (as listed on Schedule 9 of WCA5) are present, this criterion is automatically failed.	Monitoring to identify any invasive species, and remedial action implanted to remove if identified.	By Year 5	By Year 5

Species-rich native hedgerowCreation

- 7.30 Creation of 0.053km of species-rich native hedgerow on the southeastern boundary of the Site, as a continuation of the existing boundary hedgerow, targeted at good condition.

Enhancement

- 7.31 Native hedgerow (0.491km) on the southeastern boundary to the Site will be enhanced to species-rich native hedgerow, targeted at good condition.

Management

- 7.32 Detailed management interventions and targets for species-rich native hedgerows (good condition) are provided in Table 8, below.

Table 9: Species-rich hedgerow management detailed methods

Action	Timing	Prescriptions
Establishment Management	Year 1	<u>Enhancement</u> Sections of the existing native hedgerow to be enhanced will need to be scrubbed out, with open sections replanted with a greater species diversity, targeting a minimum average of 5 species per 30m. Scrubbing out of the hedgerow will be completed outside of the bird nesting season (generally March – August Inclusive, although nesting can occur out with these dates), or be preceded by a nesting bird check by a suitably qualified ecologist. Scrubbing out will be preceded by a badger and reptile check. Planting prescriptions to follow the creation establishment methods below. <u>Creation</u> Native trees and shrub species will be planted in two staggered rows approximately 30cm apart, aiming to plant around 4-6 plants per metre. New planted should be protected with canes and spiral guards to prevent being browsed in the early stages. Overall, a minimum average of 5 species per 30m should be achieved along each hedgerow. Any evidence of existing soil compaction along the hedgerow will be remediated before planting to ensure the soil is able to support new growth. Small planting pits will be dug as shallow squares. The base of the planting pit will be broken up to encourage aeration to the depth of a garden fork prior to planting. Backfilling of soil will utilise existing excavated soils only with no compost or fertiliser application. Existing sub soils and topsoil should be kept separate during excavation, with the subsoil backfilled first before topping with topsoil. Lightly firm down the back fill, avoiding compaction. It will be important to ensure that plants are not planted lower than the surrounding ground level. The aim of planting will be to ensure that the level that the tree/shrub base meets the soil level will be slightly above ground level, aiming for 25mm above. After planting, water the any areas of new hedgerow planting.

Action	Timing	Prescriptions
		Hedgerow bases will be mulched using wood chippings or bark. Mulching will aim for a 1m diameter around the trees to prevent weed establishment. The depth of the mulch will be between 50-75mm.
Subsequent Management	Year 5+	Hedgerows will be managed on a rotational basis with ½ the total hedgerow resource cut each year, during late winter, after fruiting and prior to the bird nesting season (March). Hedgerows will be cut to a width of at least 2m wide and a minimum of 2-3m in height, avoiding damaging trees. Where species die back in the hedge, they should be replaced on a like for like basis to maintain woody species diversity. Monitoring for invasive species, natural tree loss and undesirable species will be required to ensure that the hedgerows maintain their function, structure and diversity onsite.

Condition Assessment Rationale

- 7.33 Species-rich hedgerows on the southeastern boundary of the Site are targeted at 'Good' condition, and it is expected that these areas achieve as a minimum, passes in Criteria A – D as shown in Table 9 below.

Table 10: Species-rich native hedgerow management targets

Condition Assessment Criteria/ Objective	Management Intervention	Timing
		Good
Height and width >1.5m average along length Gap between ground and base of canopy <0.5m for >90% length	Management will support and promote the continued growth of the hedgerow structure and diversity. This will target bushy, outgrown hedgerows. Hedgerows will be trimmed annually, with only one side of each hedgerow will be cut each year, allow the hedgerows to develop and mature over time.	By Year 7
Gaps make up <10% of total length; and No canopy gaps >5m.	Hedgerow gaps will be planted up with a range of native tree and shrub species, targeting at least 5 species per 30m on average. Management to ensure species diversity is maintained along the hedgerow length, replacing specimens on a like-for-like basis where failures occur or gaps form.	By Year 7
>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	Ruderal / ephemeral habitat expected to develop at hedge base, no seeding will occur.	By Year 5
>90% of the hedgerow or undisturbed ground is free of damage caused by human activities and is free of invasive non-native plant species (including those listed on Schedule 9 of WCA3) and recently introduced species.	Regular monitoring and management will be implemented to ensure non-native and invasive species do not grow within the hedgerows or associated grassland buffers.	By Year 5

8.0 WORKS SCHEDULE & MONITORING STRATEGY

- 8.1 All habitats will be monitored in years 1, 3, 5, then every 5 years thereafter for the 30-year timeframe covered by this LEMP, by a suitably experienced ecologist (Table 10 below).
- 8.2 Results of this monitoring will be used to inform changes to the management plan (including rolling five-year work programme). The detailed management prescriptions set out in the management plan will be altered if required following monitoring and in agreement with the landscape contractor, LPA, and any other stakeholders.
- 8.3 A detailed work programme will be set annually by the landscape contractor or other parties managing the site.
- 8.4 Results of the monitoring surveys should be reported back and feed into a five-year management plan review, to enable assessment of the management prescriptions against the defined objectives for each habitat. Where objectives are not being adequately met, appropriate action will be put in place (such as detailed in the Management Target tables for each habitat) to amend management prescriptions, with any refinements incorporated into the updated management plan and annual work programme. At this time the need for, and frequency of, detailed habitat assessments should be set accordingly for each habitat as necessary and incorporated within subsequent management plan periods.

Table 10: Management timetable

Habitat / feature	Description of works	Active Month												Year(from habitat creation)					Aftercare Period
		J	F	M	A	M	J	J	A	S	O	N	D	1	2	3	4	5	5-30
Management prescriptions																			
<u>Other Neutral Grassland and modified grassland</u>	Soil testing (where applicable) and ground preparation.																		
	Sow in accordance with manufacturer's instructions and protect during establishment.																		
	First cut when sward reaches 100mm.																		
	Mowing / strimming and remove arisings.																		
	Conservation harrowing and resowing /sowing of yellow rattle as required.																		
	Rotational mowing of woodland and scrub grass margin and tussocky grassland areas.																		
<u>Species-rich native hedgerows</u>	Scrubbing out sections of existing native hedgerow																		
	Planting of hedgerow.																		
	Hedgerow trimming.																		
<u>Individual trees</u>	Planting of trees.																		
	Watering, where required																		
	Pruning, where required.																		
<u>INNS</u>	Control of INNS (as required).																		

Habitat / feature	Description of works	Active Month												Year(from habitat creation)					Aftercare Period
		J	F	M	A	M	J	J	A	S	O	N	D	1	2	3	4	5	5-30
Monitoring																			
<u>Whole site</u>	Site visit to review suitability of management objectives on yearly basis.																		
	Update management plan, if required.																		

Monitoring Methods

- 8.5 The success of measures outlined in the HMMP will be monitored and recorded by the Appointed Ecologist in Aftercare Reports. Site visits will be carried out by the Ecologist during the Aftercare Period, to review the success of the HMMP and suitability of the objectives with the planning authority. Where necessary, these reports will recommend intervention or amendments or variation to the management prescriptions above.
- 8.6 A timetable of habitat monitoring prescriptions are provided in Table 14, below.

Table 11: Habitat monitoring timetable.

Habitat / feature	Monitoring methods	Active Month	Active Year
Other neutral grassland and modified grassland	Monitoring will include a walkover of the grasslands prior to any annual cut with notes taken on species, cover of scrub, species indicative of sub-optimal condition, presence of non-native species, and any other factor which may impact condition. The walkover will be supplemented by recording the plant species present within a series of 1m x 1m quadrats. Quadrats will be placed within what were visually considered to be stands of homogenous vegetation, which are representative of the wider community and the following recorded: - the percentage cover for each species within the quadrat; - the percentage cover of bare ground within the quadrat; - average height of the sward within the quadrat; and - the location of the quadrat and a photo of the quadrat. A minimum of 5 quadrats will be collected per grassland community. Using the information collected, the grassland (medium, high and very high distinctiveness) condition assessment table will be completed with notes on individual criteria and constraints. If any areas of grassland show evidence of being classified as a higher distinctiveness community (i.e. other neutral grassland showing signs of developing into lowland meadow), the management plan will be updated to reflect this.	June- July	1, 3 & 5 and then every 5 years

Habitat / feature	Monitoring methods	Active Month	Active Year
Individual trees	Throughout the management plan period, trees will be monitored for their health. Individual trees will be monitored for: • Trees achieving maturity; • Any vandalism or adverse impacts from human activity; • Pruning activities; and • Presence of vegetation under the tree canopy area	May – September	1, 3 & 5 and then every 5 years
Species-rich native hedgerow	Throughout the management plan period, the existing hedgerows will be monitored for: • Hedgerow structure (Height and width) • Hedgerow gaps • Grassland buffer size • Nutrient enrichment • Invasive and neophyte species presence • Signs of damage (including excessive browsing and grassland poaching)	May-August	1, 3 & 5 and then every 5 years
Whole site	Site walkover to identify any INNS, and to identify any areas that may require remedial action in order to meet habitat target conditions.	May-August	1, 3 & 5 and then every 5 years

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