

# Habitat Management and Monitoring Plan

For use with  
Small Sites Metric  
(Statutory Biodiversity Metric)

<b>Site Name:</b>	Acorn Lodge Cranegate North, Lincs, PE12 6ST
<b>Date:</b>	6 February 2026
<b>Version:</b>	Version 1
<b>Small Sites Criteria Met</b>	The site fulfils the criteria for use of the <u>Small Sites Metric (Statutory Biodiversity Metric)</u> calculation tool
<b>Applicant</b>	Mr T Twigger
<b>Plan completed by</b>	Oliver Lewis CBE
<b>Non-technical Summary</b>	Change of use and erection of garage and workshop, offset with saplings and improved grassland

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**Version Control SM-T02**

Version	Issue Status	Prepared by / Date	Approved by / Date
1	For approval	6 February 2026	n/a

**Authorship Details SM-B01**

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# 1. Project Background

Project information SM-T01	
<b>Project type</b>	On-site gains
<b>Development Name and Address</b>	Acorn Lodge Cranesgate North, Lincs, PE12 6ST
<b>Author</b>	Oliver Lewis CBE
<b>Landowner</b>	Mr T Twigger
<b>Period covered by this management plan</b>	30 Years
<b>Planning authority</b>	South Holland
<b>Planning reference</b>	H23-1090-25
<b>Total Site Area</b>	5152.3811

## Planning Condition

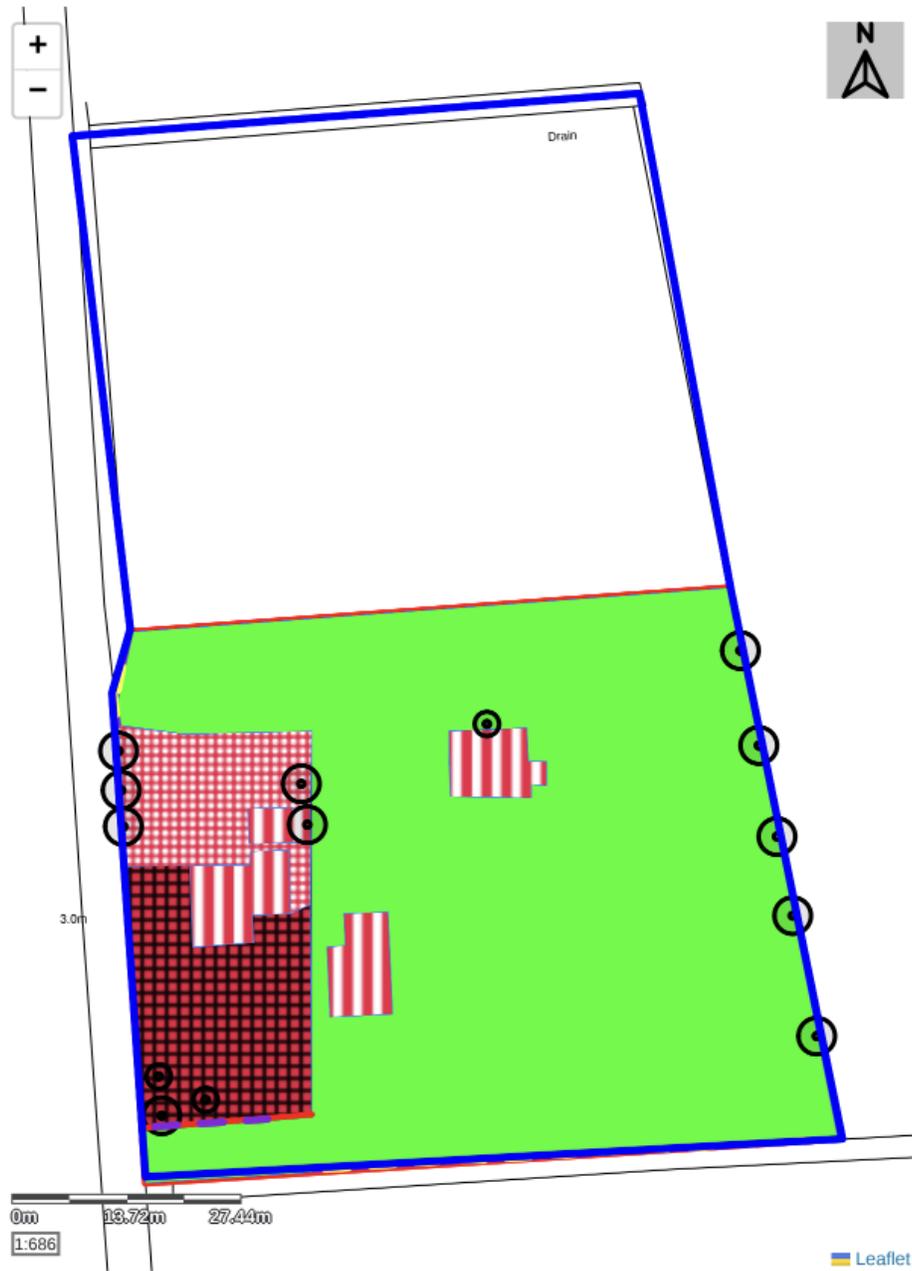
### Details of Planning Conditions to be Discharged by this Document SM-B02

This document sets out how all planning conditions linked to Schedule 7A of the Town and Country Planning Act 1990 (as amended) shall be met.

## Roles and Responsibilities

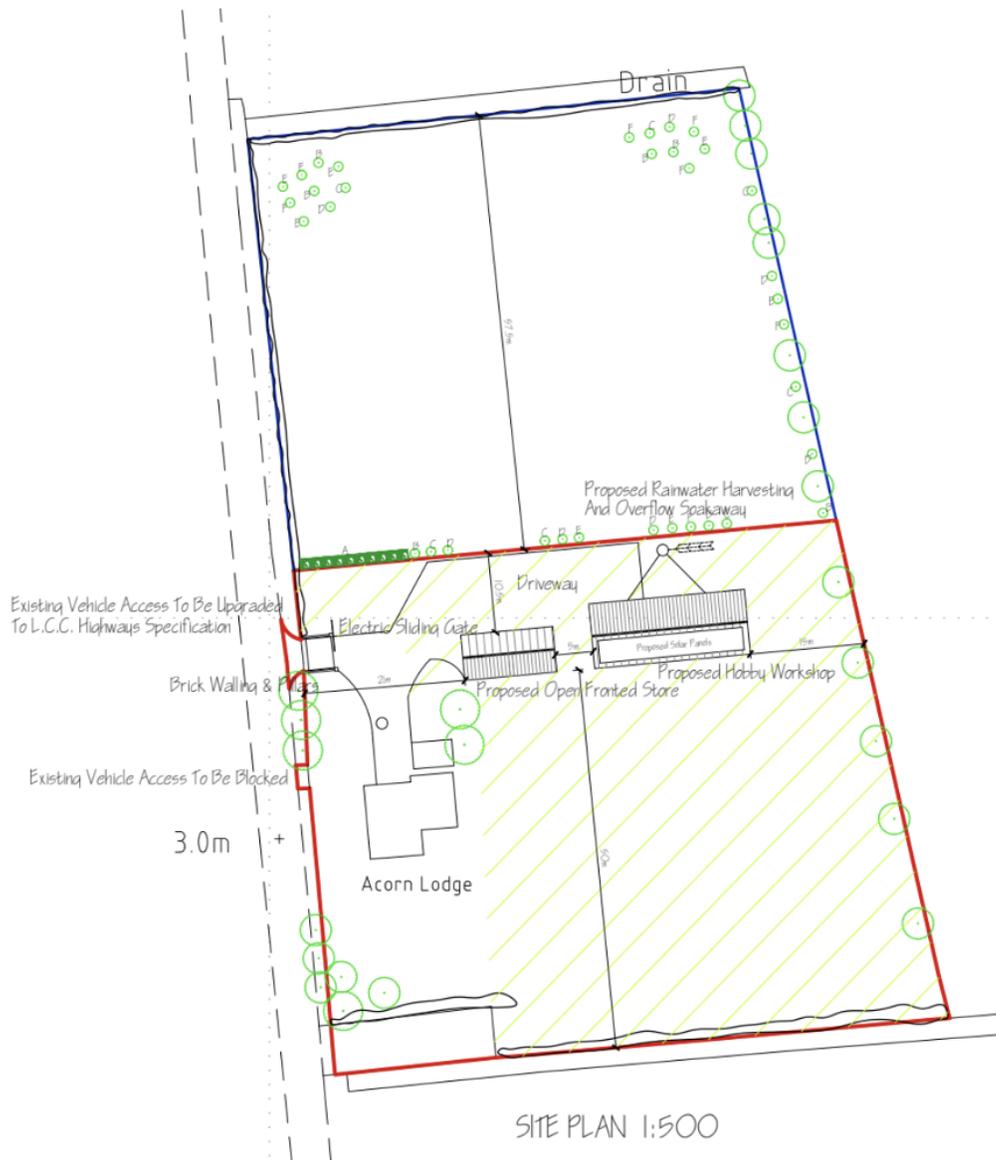
Author Responsible for Preparing HMMP SM-B03	
Name or Initials / Role	Oliver Lewis CBE
Responsibility Start Date	n/a
Responsibility End Date	n/a
Statement of competency	The competency of the SSM 'user' is aligned with definition set out in the British Standards. Applicant has completed a significant number of SSM applications for a variety of habitats
Landowner / Management Organisation Responsible for Delivering HMMP SM-B04	
Name or Initials / Role	Mr T Twigger
Responsibility Start Date	n/a
Responsibility End Date	n/a
Statement of competency	Long standing land owners

## Site Boundary Plan SM-F01



Please note that there are no priority habitats within 500m of the site.

## Site Proposals Plan SM-F04



Description of Site Use - Baseline SM-B05	Modified grassland, trees and various zero rated land
Description of Site Use - Proposed SM-B06	Enhanced grassland and additional saplings

Site Photos SM-F03





**2. Management Plan Aims and Objectives**

<p>Overview of Proposed Habitat Aims and Objectives SM-B07</p>	<p>The primary aim of this Habitat Management and Monitoring Plan (HMMP) is to ensure the long-term preservation, enhancement, and creation of habitats within the project area to achieve a measurable Biodiversity Net Gain (BNG) over a minimum period of 30 years. This will be accomplished by:</p> <p>Maintaining Retained Habitats: All existing habitats that are to be retained will be managed to maintain or improve their current ecological condition. This involves implementing appropriate management practices that support the health and diversity of these habitats, ensuring they continue to provide valuable ecosystem services and wildlife support.</p> <p>Enhancement and Creation Measures: We aim to implement enhancement measures and create new habitats as described in this HMMP as promptly as possible to expedite ecological benefits.</p> <p>Achieving Compliance and Beyond: The plan not only meets the statutory requirements for habitat conservation but also strives to exceed them by contributing positively to local biodiversity targets and environmental strategies set forth by the council and relevant conservation bodies.</p> <p>The intention is that this document will provide a robust monitoring program which will be established to track the progress of habitat conditions and the success of the enhancement measures. Regular surveys and assessments will inform adaptive management strategies, allowing for timely interventions to address any issues and ensure the HMMP's objectives are met efficiently.</p> <p>This includes the strategic planting of a small number of saplings to offset any habitat loss resulting from development activities.</p>
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<p>Retained and Enhanced Habitats Protection Measures SM-B08</p>	<p>Modified grassland will be enhanced to "good" condition as defined by Natural England. In order to manage this, the following regime will be taken:</p> <ul style="list-style-type: none"> <li>- There shall be a diverse grassland seed mix ensuring a minimum of 6 plant species per square metre. The seed mix will be 100% native, and chosen so as to tolerate a variety of soil conditions and mowing.</li> <li>- Management will ensure the parcel shall have less than 20% scrub and less than 20% bracken cover.</li> <li>- Management shall ensure that there are no invasive non-native plant species as listed on Schedule 9 of the Wildlife and Countryside Act (1981).</li> <li>- Steps will be taken to ensure a varied sward height. At least 20% of the grass area will be shorter than 7 cm and at least 20% will be taller than 7 cm, allowing different small animals (vertebrates and invertebrates) to live and breed.</li> <li>- Steps will be taken to ensure ongoing monitoring and protection from physical damage so that bare ground and other signs of damage (such as littering) never exceed 5% of the total area.</li> <li>- Steps will be taken to reduce regular footfall including (if appropriate and necessary) via signage.</li> </ul>
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<p>Summary of Adaptive Management Approaches SM-B09</p>	<p>The authors recognise that over the 30-year duration of the Biodiversity Net Gain Habitat Management and Monitoring Plan (BNG HMMP), adjustments may be necessary to ensure habitats continue to meet the outcomes specified in the original biodiversity gain plan approval. To this end, regular reviews will be conducted, and adaptive changes to the management approach will be implemented if it becomes evident that the original commitments cannot be fully met.</p> <p>Adaptive management is a structured, iterative process that allows for responsive decision-making in the face of environmental uncertainties. It involves setting clear biodiversity objectives, implementing management actions to achieve these objectives, monitoring habitat conditions and biodiversity indicators, and adjusting management strategies based on monitoring results.</p> <p>Monitoring will be integral to this approach, with regular assessments scheduled throughout the 30-year period (see below for details). This will involve habitat condition assessments and, as and when the LPA deems it necessary, surveys based on the UKHAB and Natural England definitions of the relevant habitats, and evaluation of environmental parameters. All adaptive changes will be documented, with significant adjustments requiring consultation with relevant stakeholders and approval from the council. Communication will be maintained through regular reports detailing monitoring results, management actions taken, progress towards objectives, and recommendations for future actions.</p> <p>The commitment is to ensure that all habitats continue to meet or exceed the biodiversity outcomes specified in the original plan. By embracing an adaptive management approach, the BNG HMMP demonstrates a proactive and flexible strategy that acknowledges the dynamic nature of ecosystems and the potential for unforeseen environmental changes. This method ensures that management practices remain effective and responsive over time, thereby enhancing the likelihood of achieving sustained biodiversity net gains for the benefit of the environment and the community.</p> <p>For the grassland, if monitoring indicates a decline in species diversity or habitat quality, adaptive actions may include altering mowing regimes, soil amendments, or controlling invasive species.</p>
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**Habitat Management Proposals**

<p>Habitat Baseline Description SM-B10</p>	<p>Modified grassland, trees and various zero rated land</p>
<p>Enhanced Habitats SM-B12</p>	<p>Improve modified grassland to "good" condition</p>

<b>Created Habitats SM-B13</b>	<p>Over 14m of species rich native hedgerow will be created at "good" condition. To do this the management regime will seek to maintain ≥ 90 % native woody species overall, with a minimum of four native woody species in any 30 m stretch (typical mix: hawthorn <i>Crataegus monogyna</i>, blackthorn <i>Prunus spinosa</i>, field maple <i>Acer campestre</i>, hazel <i>Corylus avellana</i>, dog-rose <i>Rosa canina</i>). Where diversity is below target, infill-plant with locally sourced, 40–60 cm whips during the first dormant season after plan adoption. It will meet the UKHAB definition of species rich by having a minimum of five different species.</p> <p>The hedge will be allowed to grow to ≥ 1.5 m high and ≥ 1.5 m wide along its length (outside any road/street-scene visibility splays). Trimming will be carried out on a two- or three-year cycle, cutting no lower than the previous growth point and alternating sides so at least one face flowers/berries each year. Canopy gaps will be kept to &lt; 10 % of total length and no single gap &gt; 1 m shall be allowed to appear.</p> <p>There shall be a dedicated ground and management regime: an undisturbed margin ≥ 1 m wide on at least one side (measured from the outer canopy) will be maintained, allowed to develop a tussocky grass/herb layer. Margins will be cut once annually in late summer (Aug–Sept) and remove arisings to control nutrient build-up; spot-treat pernicious weeds only where necessary. Steps will also be taken to ensure that nutrient-loving indicators (nettles <i>Urtica</i> spp., cleavers <i>Galium aparine</i>, docks <i>Rumex</i> spp.) occupy &lt; 20 % of the ground layer; address exceedance with cut-and-collect plus judicious hand weeding. There shall also be steps to inspect for Schedule 9 invasive plants.</p> <p>We propose planting native saplings that are well-suited to local climatic conditions, straightforward to maintain, and widely available from nurseries. These species establish reliably over a 30-year period and are appropriate for long-term management under the Biodiversity Net Gain Habitat Management and Monitoring Plan. The selected species may include Rowan (<i>Sorbus aucuparia</i>), Hawthorn (<i>Crataegus monogyna</i>), Hazel (<i>Corylus avellana</i>), and Field Maple (<i>Acer campestre</i>). Where canopy spread permits, species such as Wild Cherry (<i>Prunus avium</i>), Silver Birch (<i>Betula pendula</i>), and Alder (<i>Alnus glutinosa</i>) may also be considered.</p> <p>Silver Birch is a fast-growing tree with distinctive pale bark and a light, open canopy. Rowan produces white spring flowers and autumn berries and grows well across a range of soils. Hawthorn forms dense foliage and is widely used in native planting schemes. Hazel typically grows as a multi-stemmed small tree and can be coppiced if required. Field Maple has a compact form and develops characteristic yellow leaves in autumn. Wild Cherry produces conspicuous spring blossom and rounded fruit. Alder is suited to damper ground conditions and is commonly planted near wetter areas.</p> <p>Saplings will be spaced approximately 2–3 metres apart (minimum 1 metre), arranged to reflect site conditions and expected canopy spread. Where further space is possible, species such as wild cherry and silver birch may be considered. Planting will follow standard methods, including the use of guards, maintenance of a clear area around each sapling, and occasional watering during prolonged dry periods. Once established, these species generally require minimal ongoing intervention, other than periodic checks in line with HMMP monitoring. Final species type will be determined at the moment of detailed landscaping.</p> <p>The use of native saplings ensures ease of sourcing, suitability for local growing conditions, and long-term stability over the 30-year management period. This approach supports the objectives of the HMMP by setting out a clear, maintainable planting structure that remains appropriate for the site throughout the management term.</p>
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### 3. Creation, Enhancement and Management

#### Creation, Enhancement and Management Targets and Prescriptions SM-T02

**Modified grassland** will be prepared by scarifying to expose approximately 50% bare ground prior to sowing. Surface disturbance will be achieved using light mechanical methods such as a brush harrow or chain harrow. Over-sowing with a native wildflower and grass seed mix (comprising at least six species) will then be carried out, followed by light rolling to ensure good seed-to-soil contact. Deep ploughing or soil stripping will not normally be undertaken. Areas that are heavily weedy or compacted may be subject to spot treatment and re-seeding as required.

Ongoing management will be delivered through cutting. Cutting will typically occur in late summer, with all arisings removed, and ongoing assessments will be taken to determine if this can be supplemented by aftermath grazing to maintain sward heights in the range of 5–15cm into autumn. Where grazing is not feasible, a second cut may be applied in autumn. Management will be undertaken on a rotational basis to provide structural diversity, with no more than c.30% of the grassland subject to cutting in any single season.

Targets:

Species richness:  $\geq 6$  native species /m<sup>2</sup> (3 of 5 quadrats) maintained through Year 10+.

Broad-leaved herbs & sedges:  $\geq 25$ –30 % combined cover.

Undesirable spp.:  $< 20$  % cover.

Bare ground:  $< 5$  %; litter/thatch:\*\*  $< 25$  % outside late winter.

For **Species Rich Native Hedgerow**, planting will use locally sourced, bare-root whips 40–60 cm in height, set in a double staggered row at 30–45 cm spacing, with 40–60 cm between rows, equating to approximately 5–7 plants per metre. Species will be drawn from a typical native hedgerow mix (e.g. hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, hazel *Corylus avellana*, field maple *Acer campestre*, and dog-rose *Rosa canina*), ensuring at least five native woody species across the length of the new hedge. Guards or protective fencing will be installed as necessary to protect whips from browsing or trampling. During the first three years, management will focus on establishment, including watering in dry conditions, replacement of failed plants, and selective weeding to suppress competition. After establishment, trimming will be introduced on a two- to three-year cycle, cutting no lower than the previous growth point, to develop a dense, structurally diverse hedge. An undisturbed ground margin at least 1 m wide will be maintained alongside the hedge to provide a tussocky grass and herb strip, cut once annually with arisings removed.

Management will seek to maintain at least 90% native woody species overall, with a minimum of four native species present within any 30-metre section. Where species diversity falls below the required threshold, infill planting with locally sourced whips (40–60 cm) will be carried out during the first dormant season following adoption of the plan. The hedgerow will be maintained at a height and width of at least 1.5 m (outside of visibility splays), with trimming undertaken on a two- or three-year cycle. Cutting will be no lower than the previous growth point, and sides will be alternated so that at least one face is allowed to flower and fruit each year. Canopy gaps will be kept below 10% of the total hedgerow length, and no single gap greater than 1 m will be permitted to develop.

A dedicated ground margin at least 1 m wide on at least one side of the hedgerow (measured from the outer canopy) will be retained as undisturbed habitat and allowed to develop a tussocky grass and herb layer. This margin will be cut once annually in late summer (August–September), with arisings removed to limit nutrient build-up, and pernicious weeds will be controlled only where necessary. Nutrient-loving species such as nettles (*Urtica* spp.), cleavers (*Galium aparine*), and docks (*Rumex* spp.) will be managed so that they do not exceed 20% of the ground layer, with cut-and-collect or hand removal applied if this threshold is exceeded. The hedgerow and margins will also be inspected periodically for Schedule 9 invasive plants, and control measures implemented if detected.

Targets:

Height: average  $\geq 1.5$  m by Year 5; maintained  $\geq 1.5$  m thereafter.

Width: average  $\geq 1.5$  m by Year 5; maintained  $\geq 1.5$  m thereafter.

Canopy continuity:  $< 10$  % of total length as canopy gaps; no gap  $> 5$  m by Year 10 ( $\leq 20$  % and no gap  $> 5$  m by Year 5).

Base gap: leafy growth to  $\leq 0.5$  m above ground for  $\geq 90$  % of length by Year 10 ( $\geq 70$  % by Year 5)

The **trees** will be selected to suit site conditions. Stock to be 8–10 cm or 10–12 cm girth standards (or 60–90 cm transplants where space or visibility dictates), planted in hand-dug pits sized to at least 2× rootball diameter and backfilled with site-won subsoil/topsoil (no fertiliser). Each tree to be staked (single or double, leeward side) with adjustable rubber ties and fitted with a guard or cage appropriate to local browsing pressure. A 1 m diameter mulch ring (75 mm depth) will be established around each stem and kept weed-free. Initial watering will be provided at/after planting and during the first two growing seasons in dry spells (indicatively 15–25 L per tree per week May–September, adjusted to weather/soil).

Targets:

Survival:  $\geq 90$  % survival in Years 1–5;  $\geq 95$  % thereafter.

Replacement: Any loss replaced like-for-like in the next dormant season to maintain numbers.

Crown form & health: Single clear leader and balanced crown by Year 5;  $< 10$  % crown dieback/ deadwood outside normal species habit; no significant mechanical damage to stem.

Support & protection: Stakes/ties/guards removed by Year 5 or earlier if stable; mulch ring  $\geq 1$  m diameter,  $\geq 50$ –75 mm depth, maintained weed-free for 5 years.

Time-to-target: Moderate condition achieved by Year 10; maintained through Year 30."

#### Risk Register and Proposed Remedial Measures SM-T03

Risk Factor	Habitat/Hedgerow/Watercourse Type	Trigger for Action	Remedial Measure
Damage caused by site operations	All	Clear, sustained evidence of damage due to site operations	Steps to amend site operations on or near the location of the gains. Ongoing iteration to ensure that tree health is maintained and not compromised.
Damage caused by site footfall	All	Clear, sustained evidence of damage due to site footfall	Steps to reduce footfall on relevant sections (e.g. sections of introduced shrub) via among other steps, signage.
Establishment failure	All	Failure to meet conditions within 1 year of establishment.	Steps to identify the reason for failure and then rectify. Take steps to reestablish the habitat and inform the LPA of the failure
Failure from extreme weather	All	Extreme weather event has clear impact	Steps to identify if weather event is likely to occur again and then rectify. Take steps to reestablish the habitat and inform the LPA of the failure

Any material change will trigger a Minor Material Amendment to the HMMP that must be agreed in writing with the Local Planning Authority.

## 4. Monitoring

### 1. Monitoring Strategy for Each Habitat, Hedgerow and Watercourse Present On-Site SM-T04

Habitat/Feature Type	Monitoring Methods	Monitoring Interval and Timing
All	On site surveys will be made of the site, and each intended habitat will be measured against the relevant criteria set out in the Small Sites Metric User Guide and UKHAB definitions	Monitoring and reporting to be undertaken at least once every two years (i.e. year 1, 3, 5, 7, 9 moving to once every five years thereafter). There will be an option to increase in frequency if requested by the LPA. Reports will be produced by the landowner but may be commissioned to a third party including (but not limited to) ecological consultants.

#### Additional Details

For the modified grassland, monitoring will be undertaken by walkover survey in accordance with the Small Sites Metric (SSM) / Biodiversity Metric condition assessment criteria for grassland. Each survey will record:

- species composition and frequency (Dafor scale / % cover)
- positive and negative indicator species
- % cover of bare ground
- evidence of sward structure (height variation, tussocks)
- evidence of management (cutting/grazing, removal of arisings)
- presence of invasive or undesirable species.”

Reports will assess condition against the Biodiversity Metric criteria for ‘good’ grassland, with photographs and maps appended. Monitoring surveys will be carried out by a competent person (landowner, ecologist, or third party) and submitted to the LPA at the agreed intervals.

Monitoring of the species rich native hedgerow will be undertaken in accordance with Biodiversity Metric condition assessment criteria.

Surveys will be carried out at the agreed reporting intervals and will record the following: the proportion of native woody species and species diversity within each 30-metre section; hedge dimensions (height and width); trimming cycle and evidence of flowering/fruiting; continuity of the canopy and percentage cover of any gaps; presence of invasive or undesirable species; and the condition of the ground margin, including cover of tussocky grass/herb layer and proportion of nutrient-loving indicators. Each survey will include mapped records and photographs to provide a baseline for comparison over time. Results will be assessed against the targets set out in the plan (≥90% native woody species, ≥4 native species per 30 m, canopy gaps <10%, nutrient-loving indicators <20% of ground layer), and remedial actions such as infill planting, adjusted trimming regimes, or targeted weed control will be implemented where monitoring indicates thresholds are not being met.

Monitoring of the planted saplings will be undertaken annually for the first five years and thereafter at five-year intervals. Each inspection will record survival rate, height and crown development, stem diameter, and general health, including evidence of pest, disease or drought stress. Support and protection measures such as stakes, ties and guards will be checked to ensure they remain secure but non-restrictive, with removal scheduled once trees are self-supporting. The condition of mulch circles and surrounding ground vegetation will be reviewed to confirm a weed-free zone of at least 1 m radius and absence of soil compaction or damage from mowing. Fixed-point photographs will be taken at each visit to track growth and crown form. Results will be mapped and compared year-on-year to confirm that target survival (≥ 90 %) and healthy crown structure are maintained. Where monitoring shows mortality, poor vigour, mechanical damage, or pest/disease infestation, remedial measures such as re-planting, improved watering, guard replacement, or selective pruning will be triggered in the following dormant season, with follow-up inspection to verify successful recovery.