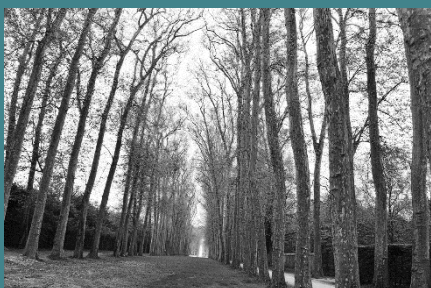


FPCR | environment  
& design



# Landscape and Ecological Management Plan (LEMP)

Client

**Bellway Homes Limited (East Midlands)**

Project

**Land off Desford Lane,**

**Ratby**

Date

**January 2025**

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|     |              |                |               |

## 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 Bellway Homes Limited (East Midlands) to discharge Condition 12 of the outline planning application (Ref: 21/01295/OUT) granted by the Hinckley and Bosworth Borough Council 15.10.2021.

1.2 Condition 12 of the planning consent states:

*"Prior to occupation of the development, a landscape and ecological management plan, including long term objectives, management responsibilities and maintenance schedules for all landscape areas other than privately owned domestic gardens shall be submitted to and approved in writing by the Local Planning Authority. The landscape and ecological management plan shall be carried out in accordance with the approved details."*

1.3 This LEMP has been produced to accompany the Landscape Strategy Plan (12963-FPCR-XX-XX-DR-L-001\_p02) and should be read in conjunction with these.

### Site Location and Context

1.4 The Site is located to the south of Ratby and lies adjacent Desford lane along the northeastern boundary. It is bounded by residential areas to the north and east, including games pitches, arable land to the northwest and south and a paving centre to the southwest.

## 2.0 BASELINE SITE CONDITIONS

2.1 The baseline habitats were provided in the Ecological Impact Assessment<sup>1</sup> and mapped in line with the Habitats Plan, Drawing No.: CSA/5249/101.

2.2 A summary of the survey results is provided below.

### Habitats

2.3 The majority of the Site comprised cereal crops, with relatively small parcels of bramble scrub in the northeast, northwest and southwest corners of the field. An area of other neutral grassland was identified in the south-eastern corner of the Site.

2.4 Native hedgerows associated with a bank or ditch ran along the southern boundary and sections of the northern and western boundaries. A native hedgerow comprised the rest of the northern boundary. These hedgerows were dominated by hawthorn *Crataegus sp.*, with frequent blackthorn *Prunus spinose* and rose *Rosa sp.*

2.5 A species-rich native hedgerow associated with a bank or ditch was identified on the eastern boundary. This was classified as species-rich as nine native shrub species and trees were recorded along its length.

## 3.0 SITE PROPOSALS & FEATURES TO BE MANAGED

3.1 The proposals will result in the loss of the majority of the onsite habitats, with small sections of bramble scrub retained. Most of the hedgerows are also to be retained, and losses to

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<sup>1</sup> CSA Environmental 2021. *Ecological Impact Assessment, Desford Lane, Ratby*. CSA/5249/05.

hedgerows is largely limited to the areas required to facilitate access into the Site and for the internal road layout.

- 3.2 Habitat losses will be compensated for through creation of new habitats, to include meadow grassland, multiple sustainable drainage systems and the planting of trees throughout the development.
- 3.3 The landscape design strategy also includes proposals for the establishment of new areas of native hedgerows, and native scrub. The habitats on site will be brought under long-term management to ensure their future ecological value is maximised and the ecological potential of the site is maintained. The implementation of the new habitats will ensure that green corridors are maintained across the site and around the perimeter, and will link to areas of newly created habitats, hence further enhancing habitat connectivity and site biodiversity value.

## 4.0 MANAGEMENT AIMS AND OBJECTIVES

### Long Term Landscape and Environmental Management Objectives

- 4.1 The main objectives for the site are to maintain, protect and enhance the nature conservation value of retained habitats and provide new habitats to maximise biodiversity within the Site, in accordance with the requirement of both local and national planning policy. Sympathetic management of new and retained habitats will aim to encourage the natural dispersal of wildlife within the Site and to/from surrounding habitats, and will contribute to the maintenance of ecologically valuable habitat in the long-term.
- 4.2 The habitats created will provide resources for use by a wide variety of species including birds, bats and invertebrates.

### Objectives

- 4.3 This plan promotes the following objectives for site management:

#### Objective 1

- 4.4 To maintain, protect and enhance the existing nature conservation value of the site for local flora and fauna throughout development.

#### Objective 2

- 4.5 To create a variety of new habitats to improve the ecological value of the proposed development and maximise their value through appropriate management, ensuring connectivity is maintained and created.

#### Objective 3

- 4.6 To monitor and manage retained and newly created habitats throughout the management period to ensure ecological diversity is maintained in the long term and the target conditions are achieved and maintained, as detailed in the Biodiversity Net Gain Assessment<sup>2</sup>. Feedback from site monitoring should be applied to the appropriate refinement/revision of the plan, so

<sup>2</sup> FPCR. 2024.Desford Road, Biodiversity Net Gain Assessment.

long as the modifications that are agreed are in accordance with the aims and objectives set out above.

## 5.0 HABITAT CREATION

### Habitat Creation and Management During Establishment

5.1 The proposed development incorporates the creation of the following new habitats:

- Tree planting;
- Hedgerow planting;
- General purpose meadow grassland/long season meadow grassland/ tussock mix;
- Flowering lawn;
- Native scrub and;
- SuDS wetland meadow.

5.2 Details of the habitats to be created, along with management during establishment are set out below.

### Tree Planting

5.3 A total of 203 trees are proposed to be planted across the Site. These will consist of native trees in public open space areas, non-native feature on street avenues and orchard trees in the north of the Site. These trees will mitigate tree losses brought about by the proposals, and as they mature will provide new foraging and nesting habitat for birds and other fauna.

5.4 As detailed in the Landscape Strategy Plan, tree planting will comprise the following native species and cultivars:

|                                             |                                            |
|---------------------------------------------|--------------------------------------------|
| Common beech <i>Fagus sylvatica</i>         | Plum 'opal' <i>Prunus domestica</i> 'Opal' |
| Common lime <i>Tilia × europaea</i>         | Rowan <i>Sorbus aucuparia</i>              |
| Common pear <i>Pyrus communis</i>           | Scots pine <i>Pinus sylvestris</i>         |
| Downy birch <i>Betula pubescens</i>         | Small leaved lime <i>Tilia cordata</i>     |
| Field maple <i>Acer campestre</i>           | Wild cherry <i>Prunus avium</i>            |
| Hornbeam <i>Carpinus betulus</i>            | Silver birch <i>Betula pendula</i>         |
| Large leaved lime <i>Tilia platyphyllos</i> |                                            |

5.5 Changes from the proposed species mixes will be agreed by the Local Planning Authority and relevant consultees.

5.6 Planting will where possible be timed to occur between late October and late March, avoiding periods of inundation or prolonged ground frost.

5.7 Suitable guards, fencing, or shelters will be used to protect plants from damage, where appropriate, until established. Tree guards will be removed once the trees and shrubs are established.

5.8 During establishment, planted areas will be weeded by hand around the base of the plants three times per year (from mid-April to late September) and trees watered as necessary during dry weather.

- 5.9 Within the first five years of being planted all failing/failed trees are to be replaced 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'.

### Native Hedgerow Planting

- 5.10 Native hedgerows will be created along the edges of the residential area and within the public open space. These will reflect locally occurring species, as set out within the Landscape Strategy Plan, with an emphasis on those bearing nectar, berries, fruit and nuts, as these have a greater value for wildlife than non-native species. These features will also provide enhanced nesting and commuting opportunities for a range of faunal species including birds and foraging bats.
- 5.11 As detailed in the Landscape Strategy Plan, hedgerow planting will comprise the following native species:

|                                     |                                          |
|-------------------------------------|------------------------------------------|
| Blackthorn <i>Prunus spinosa</i>    | Dogwood <i>Cornus sanguinea</i>          |
| Common holly <i>Ilex aquifolium</i> | Hawthorn <i>Crataegus monogyna</i>       |
| Dog-rose <i>Rosa canina</i>         | Hazel <i>Corylus avellana</i>            |
| Field maple <i>Acer campestre</i>   | Honeysuckle <i>Lonicera periclymenum</i> |

- 5.12 Planting will be undertaken between late October and late March, avoiding periods of inundation or prolonged ground frost.
- 5.13 Suitable rabbit guards, fencing, or shelters will be used to protect plants from damage until established. Tree guards will be removed once the hedgerow/shrubs are established.
- 5.14 Until the new planting is established, formative pruning will be undertaken once annually to keep the hedgerow tidy. Weeding by hand will be undertaken around the base of the plants three times per year, and new hedgerow planting watered as necessary during dry weather.
- 5.15 Within the first three years of being planted all failing / failed specimens within the hedgerow are to be replaced with a plant of either the same species or similar species as those existing.

### General Purpose Meadow Grassland/ Long Season Meadow Grassland / Tussock Mix

- 5.16 Areas of meadow grassland and tussock mix will be created within areas of public open space around the residential development. They will provide an enhanced botanical diversity and benefit local fauna including insects and other invertebrates, birds, bats and other terrestrial mammals.
- 5.17 The ground will be appropriately cultivated prior to seeding to bury the surface vegetation, using a harrow or rake to produce a medium tilth, prior to the surface being rolled or otherwise made firm. Areas of general purpose meadow grassland will be sown with Naturescape N1 'General Purpose Meadow Mixture' or equivalent native mix in spring or autumn at a rate as specified by the supplier and firmed in with a roller, or by treading to give good soil contact. Areas of long season meadow mixture will be sown with Naturescape N5 'Long Season Meadow Mixture' or similar. The tussock grassland will be sown with Naturescape NG9 'Hedgerow Meadow Mixture' or similar and managed to provide a tussocky structure to provide a transition ecotone between shorter regularly managed areas of grassland and features including hedgerows and trees.

- 5.18 Native grassland may take 12-18 months to knit together as turf, therefore newly seeded areas will be protected to prevent seedling destruction during establishment. Any flush of annual weeds from the soil during the first growing season will be controlled by topping or mowing. The arisings will either be removed off site or to a designated composting area, to encourage grassland establishment.
- 5.19 During the initial establishment season the grassland will be mown regularly to a height of 40-60mm, with the arisings removed as above. The mowing frequency will have regard to weather conditions to ensure that there is no excessive cutting during dry periods. In very wet conditions all grass cutting operations will cease until conditions allow for grass cutting to take place without damaging the surface levels or creating 'divots' from the machinery.

### Flowering Lawn

- 5.20 Areas of more formal POS is proposed across the site, including road verges, adjacent to the footpath links and in the central green corridor. These areas will be more intensively managed to achieve a tidy appearance and will be sown with Naturescape N14 'Flowering Lawn Mixture' or similar, sown as per the manufacturer's instructions.
- 5.21 Areas to be sown will be first rotovated and raked or harrowed to produce a medium fine, firm tilth. Seed will be sown in the autumn or spring, selecting a time when the soil is moist and can be worked.
- 5.22 The above seed mix includes many perennial species that can be slow to germinate and grow. Ground cover will therefore likely take longer to develop than conventional lawn sowings and may take 12-18 months to knit together as turf. Newly seeded areas will therefore be protected to prevent seedling destruction by pedestrians.

### Native Scrub

- 5.23 Areas of native scrub are proposed along the eastern, southern and western boundaries of the Site. These will reflect locally occurring species, as set out within the Landscape Strategy Plan, with an emphasis on those bearing nectar and berries, as these have a greater value for wildlife than non-native species. These features will also provide enhanced nesting and commuting opportunities for a range of faunal species including birds and foraging bats.
- 5.24 As detailed in the Landscape Strategy Plan, scrub planting will comprise the following native species:

|                                            |                                      |
|--------------------------------------------|--------------------------------------|
| Common buckthorn <i>Rhamnus cathartica</i> | Dog-rose <i>Rosa canina</i>          |
| Common dogwood <i>Cornus sanguinea</i>     | Field maple <i>Acer campestre</i>    |
| Common hawthorn <i>Crataegus monogyna</i>  | Field rose <i>Rosa arvensis</i>      |
| Common hazel <i>Corylus avellana</i>       | Gelder-rose <i>Viburnum opulus</i>   |
| Common privet <i>Ligustrum vulgare</i>     | Mountain ash <i>Sorbus aucuparia</i> |

- 5.25 Planting will be completed between late October and late March, avoiding periods of inundation or prolonged ground frost.
- 5.26 Suitable rabbit guards, fencing, or shelters will be used to protect plants from damage until established. Tree guards will be removed once the trees and shrubs are established.

**SuDS Wetland Meadow**

- 5.27 Wet meadow grassland will be created within the SuDS features surrounding the residential development. The ground will be appropriately cultivated prior to seeding to bury the surface vegetation, using a harrow or rake to produce a medium tilth, prior to the surface being rolled or otherwise made firm. These areas will be surface sown with Naturescape N7 'Wetland Meadow Mixture' or equivalent mix in spring, late summer or autumn at a rate as specified by the supplier and firmed in with a roller, or by treading to give good soil contact.
- 5.28 Newly seeded areas will be protected to prevent seedling destruction during establishment. Predominately perennial species are unlikely to flower in the first growing season. Any flush of annual weeds from the soil during the first growing season will be controlled by topping or mowing as required. The arisings will either be removed off site, or to a designated composting area.
- 5.29 Meadow habitats will benefit a wide range of invertebrate and vertebrate fauna.

**6.0 POST-ESTABLISHMENT MANAGEMENT PLAN**

- 6.1 A formal maintenance approach will be followed for the habitats within the immediate development area, comprising the flowering lawn. The management strategy for newly-created grassland, tree/shrub planting and the SuDS ponds will be less intense, with the aim of maintaining existing commuting routes for local fauna, contributing to the biodiversity value of the site and achieving and maintaining the target habitat condition.
- 6.2 The management prescriptions for all habitats retained and created within the site are detailed in Table 1. The plan presented here covers the management of such areas for the first ten years following establishment.
- 6.3 At ten years post construction, this Plan is to be reviewed and amended appropriately by a suitably qualified Ecologist and agreed with the LPA in order for management to be rolled forwards beyond the 10-year range of this Plan for a **minimum of 30 years**. This is necessary to ensure that the retained and created habitats continue to be appropriately managed in the context of the housing development, that their biodiversity value is maximised in line with national, regional and local policy and that the target condition is achieved and maintained.

**Environmental Considerations**

- 6.4 Habitat management within the site will take into account a number of environmental considerations, including:
- Weed growth to be controlled by hand pulling where possible;
  - Plants to be watered at appropriate times of day, to minimise water evaporation, and as per Table 1;
  - Protected species such as nesting birds and reptiles are to be considered during management of appropriate habitats (trees, hedgerows, grassland and shrubs/scrub), with a suitably qualified ecologist to undertake a pre-works check prior to the removal of such vegetation if required between March and September inclusive.

### **Monitoring**

- 6.5 The site will be subject to annual monitoring visits, during which each habitat will be monitored as per Table 1. Where appropriate, habitats will be subject to more frequent monitoring.
- 6.6 Monitoring will be undertaken for a minimum of ten years following completion of the development, with management amended as appropriate (if required) following each monitoring check in order to best achieve the management aims and objectives outlined in Section 4. Monitoring will then continue at years 12, 15, 20 and 30.
- 6.7 Flexibility is essential and the management regime should be amended to respond promptly to changing circumstances.

**Table 1. Post-establishment Management Prescriptions and Monitoring**

| Habitat / Enhancement | Description of Long-Term Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Monitoring / Remedial Action                                                                                                                                                                                                                                                                                                                       |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Trees                 | <ul style="list-style-type: none"> <li>a) Subject to two visits annually, once in growing season (April – September) and once in dormant season (October – March).</li> <li>b) Water during dry weather during the growing season (April – September).</li> <li>c) Check and tighten shelters and tree support / firm up in ground if necessary.</li> <li>d) All dead and dying specimens are to be replaced with a tree/plant 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';</li> <li>e) Once established, remove all stakes, ties, spacers, tubes etc. and make good surfaces disturbed, filling any holes with suitable topsoil.</li> <li>f) Weeding by hand or using glyphosate as appropriate will be undertaken around the base of the plants, three times per year (from mid-April to late September) and specimens watered as necessary during dry weather.</li> <li>g) Trees to be inspected every 2 years/ after storm events and any recommended works undertaken.</li> <li>h) Prune back any diseased or rotten wood (including the removal of main stems and limbs) back to sound wood. A suitably skilled and qualified arboriculturist shall carry out such pruning. All pruning timed to avoid the bird nesting season, otherwise must be preceded by a check by the Ecologist.</li> <li>i) Remove branches overhanging footpaths and/or preventing access to grass cutting.</li> <li>j) If pollarding of individual existing trees is deemed necessary by a suitably skilled and qualified arborist, once started it is important to keep trees within the specified rotation or they will develop heavy branches, overcrowding and disease due to increased humidity and reduction of air movement.</li> </ul> | <ul style="list-style-type: none"> <li>a) Record management that has been implemented.</li> <li>b) Check condition of specimens, replacing / pruning where necessary.</li> <li>c) Monitor growth, amending management as appropriate.</li> <li>d) Establish new planting where required.</li> <li>e) Consider removal of spiral guards.</li> </ul> |
| Hedgerows             | <ul style="list-style-type: none"> <li>a) Subject to two visits annually, once in growing season (April – September) and once in dormant season (October – March).</li> <li>b) All pruning timed to avoid the bird nesting season, otherwise must be preceded by a check by the Ecologist.</li> <li>c) Lightly trim new hedgerows in winter months to encourage new growth.</li> <li>d) Once established well, remove all stakes, ties, spacers, tubes etc. and make good surfaces disturbed.</li> <li>e) All dead and dying specimens are to be replaced with a tree/plant 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';</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>a) Annual monitoring visit to monitor health and growth of the hedgerows and amend management accordingly: <ul style="list-style-type: none"> <li>• height and width over 1.5m; and</li> <li>• gaps less than 10%</li> </ul> </li> </ul>                                                                    |

| Habitat / Enhancement                                   | Description of Long-Term Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Monitoring / Remedial Action                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                         | <p>f) Prune back any diseased or rotten wood (including the removal of main stems and limbs) back to sound wood. A suitably skilled and qualified arboriculturalist shall carry out such pruning.</p> <p>g) Weeding by hand or using glyphosate as appropriate will be undertaken around the base of the plants, three times per year (from mid-April to late September) and specimens watered as necessary during dry weather</p> <p>h) Top up mulch levels where necessary.</p> <p>i) Side trim retained native hedgerows and newly-planted hedgerows once established in 'A' profile, to develop wide healthy bases.</p>                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| General purpose meadow and long season meadow grassland | <p>a) Once established, mow/strim c.50-70% on rotational basis, once in early spring (c.70mm, no later than April) and once in late summer (c.40mm after flowering in late August / September).</p> <p>b) Sward to be cut to a minimum height of 150mm, leaving 1m unmanaged adjacent to retained / created woodlands and scrub.</p> <p>c) Arisings to be removed from site 48 hours after cut.</p> <p>d) Hand pull undesirable weeds as necessary.</p> <p>e) Re-seed as necessary created areas.</p> <p>f) Care to be taken when mowing / strimming around trees/scrub or other structures.</p> <p>g) Remove scrub saplings as appropriate (except within 1m unmanaged woodland edge).</p>                                                                                                                             | <p>a) Monitor annually for health and growth, identifying any dead/dying patches which will need re-seeding.</p> <p>b) Survey by a suitably qualified ecologist every 5 years and amend management as appropriate. The aim is for grassland to comprise:</p> <ul style="list-style-type: none"> <li>at least 8 species per m<sup>2</sup>;</li> <li>less than 5% scattered scrub/bramble and</li> <li>less than 5% undesirable species.</li> </ul>  |
| Tussock mix                                             | <p>a) Once established, the grassland areas should not be cut from mid-spring through to late August to give species sufficient time to flower and set seed. Cutting will comprise a 'hay cut' taken to minimum in late autumn or early spring if needed with no more than 50% of the resource cut on any one occasion.</p> <p>b) Sward to be cut to a minimum height of 150mm, leaving 1m unmanaged adjacent to retained / created woodlands and scrub.</p> <p>c) Arisings to be removed from site 48 hours after cut.</p> <p>d) Hand pull undesirable weeds as necessary.</p> <p>e) Re-seed as necessary created areas.</p> <p>f) Care should be taken when mowing / strimming around trees/scrub or other structures.</p> <p>h) Remove scrub saplings as appropriate (except within 1m unmanaged woodland edge).</p> | <p>a) Monitor annually for health and growth, identifying any dead/dying patches which will need re-seeding.</p> <p>b) Survey by a suitably qualified ecologist every 5 years and amend management as appropriate. The grassland should aim to comprise:</p> <ul style="list-style-type: none"> <li>at least 8 species per m<sup>2</sup>;</li> <li>less than 5% scattered scrub/bramble and</li> </ul> <p>c) less than 5% undesirable species.</p> |
| Flowering Lawn                                          | <p>a) Mow regularly (e.g. every two weeks) throughout growing season, ensuring sward height does not exceed 50mm.</p> <p>b) Mow during appropriate weather, avoiding sustained periods of wet weather.</p> <p>c) Mow to a height of 25-35mm.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p>a) Assess growing conditions and adjust mowing regime as appropriate.</p> <p>b) Check for areas which have not taken / died.</p>                                                                                                                                                                                                                                                                                                                |

| Habitat / Enhancement | Description of Long-Term Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Monitoring / Remedial Action                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | <ul style="list-style-type: none"> <li>d) Use appropriate machinery, using equipment suitable to the task for sections next to fences, walls, kerbs, paths and other boundaries / obstacles.</li> <li>e) Leave an uncut sward at the base of trees (500mm radius minimum).</li> <li>f) All cuttings to be dispersed evenly over the ground.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Native Scrub          | <ul style="list-style-type: none"> <li>a) Planting will be completed between the end of October and March, avoiding periods of inundation or prolonged ground frost.</li> <li>b) Suitable rabbit guards, fencing, or shelters will be used to protect plants from damage until established. Tree guards will be removed once the trees and shrubs are established.</li> <li>c) Newly planted trees will be watered during prolonged dry weather during the growing season (April – September). Water as necessary during establishment.</li> <li>d) For at least the first three years after planting, weeding will be undertaken to maintain a weed free area of at least 1m diameter around each tree/plant. Weed growth within planting areas shall be eliminated during the summer visits (April to August) with a suitable translocated herbicide, in line with the manufacturer's instructions and in compliance with the Pesticides Acts (1998).</li> <li>e) Tree and/or shrub shelters, if fitted, shall be lifted as necessary to achieve weed control, and re-firmed in the ground after completion of the work. Dead weed material shall be removed during the following visit to site.</li> <li>f) Check and tighten tree supports. If the tree has established well, then remove all stakes, ties, spacers, tubes etc. and make good surfaces disturbed, filling any holes with suitable topsoil.</li> <li>g) For the first five years all dead and dying specimens are to be replaced with a tree/plant 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'.</li> <li>h) Prune back any diseased or rotten wood (including the removal of main stems and limbs) back to sound wood. A suitably skilled and qualified arboriculturist shall carry out such pruning.</li> </ul> | <ul style="list-style-type: none"> <li>a) All plants shall be checked and firmed up in the ground as necessary.</li> <li>b) Top-up mulch levels where necessary;</li> <li>c) Pernicious weeds and invasive species make up less than 5% of the ground cover through treatment (if necessary);</li> <li>d) Moderate condition scrub will have at least three woody species with no one species comprising more than 75% of the cover.</li> </ul> |
| SuDS wetland meadow   | <ul style="list-style-type: none"> <li>a) Cut / strim on a three year rotational basis (removal of short wedge-like sections, 1/3<sup>rd</sup> per time), during late autumn /winter.</li> <li>b) Should vegetation exceed 40% of the basin/water surface (including marginal planting and aquatic species such as blanket weed), it will be removed by hand and placed on the bankside for 48 hours to allow any invertebrates or amphibians to return to the waterbody, prior to removal of the arisings from site. Management will take place when the waterbody is least likely to be utilised by amphibians or other fauna.</li> <li>c) Replace failed or poorly performing species as required.</li> <li>d) If there are areas of open water, species such as blanket-weed will need be controlled as necessary therefore will be monitored and dominance over other species prevented.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>a) Monitor annually for growth/spread of edge planting (not to exceed 40% of basin/open water).</li> <li>b) Monitor annually for establishment of blanket-weed.</li> </ul>                                                                                                                                                                                                                               |

## **7.0 MANAGEMENT RESPONSIBILITIES AND FUNDING**

### **Management Responsibilities**

- 7.1 The Site Manager of the construction phase, appointed by the developer, has the responsibility of ensuring management of retained habitats and those created during the construction phase.
- 7.2 Once the development is operational, the responsibility for long term management will be passed to a management company who will be appointed by the developer.
- 7.3 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 is to be applied to appropriate refinement and / or revision of the plan, so long as the modifications that are agreed are in accordance with the objectives.

### **Funding**

- 7.4 Habitat management during the construction phase will be funded by the developer.
- 7.5 Once responsibility of management has been passed onto the appointed management company, new residents will be subject to a management charge.

## 8.0 TIMETABLE OF WORKS

**Table 2: Habitat Establishment and 30 Year Work Schedule**

| Description of Works                                                                                                                                                | Active Month                                                                                                   |     |                            |     |     |     |     |     |     |     |     |     | Active Year |   |                        |   |                        |   |   |   |   |    |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|---|------------------------|---|------------------------|---|---|---|---|----|-----|
|                                                                                                                                                                     | Jan                                                                                                            | Feb | Mar                        | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 1           | 2 | 3                      | 4 | 5                      | 6 | 7 | 8 | 9 | 10 | 10+ |
| <b>Trees / Hedgerows</b>                                                                                                                                            | To be sown in the first growing season after the implementation in accordance with the construction programme  |     |                            |     |     |     |     |     |     |     |     |     |             |   |                        |   |                        |   |   |   |   |    |     |
| Planting between October and late March.                                                                                                                            | ✓                                                                                                              | ✓   | ✓                          |     |     |     |     |     |     | ✓   | ✓   | ✓   |             |   |                        |   |                        |   |   |   |   |    |     |
| Water during dry weather.                                                                                                                                           |                                                                                                                |     |                            | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |     |     |             |   |                        |   |                        |   |   |   |   |    |     |
| Inspect tree and hedgerow planting annually and replace dead specimens during winter.                                                                               | ✓                                                                                                              | ✓   | ✓                          |     |     |     |     |     |     | ✓   | ✓   | ✓   |             |   |                        |   |                        |   |   |   |   |    |     |
| Check stakes, ties, spiral guards and protective fencing monthly.                                                                                                   | ✓                                                                                                              | ✓   | ✓                          | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |             |   |                        |   |                        |   |   |   |   |    |     |
| Weed control/removal of weeds at hedgerow base via pulling for undesirable and persistent weed growth.                                                              |                                                                                                                |     | ✓                          | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |     |     |             |   |                        |   |                        |   |   |   |   |    |     |
| Lightly trim new hedgerows to encourage new growth.                                                                                                                 | ✓                                                                                                              | ✓   |                            |     |     |     |     |     |     | ✓   | ✓   | ✓   |             |   |                        |   |                        |   |   |   |   |    |     |
| Annual cut of established hedgerows with an 'A' shaped profile, no more than ½ of the resource should be cut to maintain a continuous supply of flowers and fruits. | ✓                                                                                                              | ✓   | Avoid breeding bird season |     |     |     |     |     | ✓   | ✓   | ✓   | ✓   |             |   | 1 <sup>st</sup><br>1/2 |   | 2 <sup>nd</sup><br>1/2 |   |   |   |   |    |     |
| Trees to be inspected every 2 years/ after storm events and any recommended works undertaken.                                                                       | ✓                                                                                                              | ✓   |                            |     |     |     |     |     |     |     |     |     |             |   |                        |   |                        |   |   |   |   |    |     |
| <b>General purpose meadow, long season meadow grassland and tussock mix</b>                                                                                         | To be sown in the first growing season after the implementation in accordance with the construction programme. |     |                            |     |     |     |     |     |     |     |     |     |             |   |                        |   |                        |   |   |   |   |    |     |
| Meadow and tussock grassland sown in autumn or spring.                                                                                                              |                                                                                                                |     | ✓                          | ✓   | ✓   |     |     |     | ✓   | ✓   |     |     |             |   |                        |   |                        |   |   |   |   |    |     |
| Once established, mow/strim meadow grassland c.50-70% on rotational basis, once in early spring (c.70mm, no later than April) and once in late                      |                                                                                                                |     | ✓                          | ✓   |     |     |     | ✓   | ✓   |     |     |     |             |   |                        |   |                        |   |   |   |   |    |     |

| Description of Works                                                                                                                                                                                                                                                                                        | Active Month                                                                                                   |     |                                 |     |     |     |     |     |     |     |     |     | Active Year |   |   |   |   |   |   |   |   |    |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|---|---|---|---|---|---|---|---|----|-----|
|                                                                                                                                                                                                                                                                                                             | Jan                                                                                                            | Feb | Mar                             | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 10+ |
| summer (c.40mm after flowering in late August / September).                                                                                                                                                                                                                                                 |                                                                                                                |     |                                 |     |     |     |     |     |     |     |     |     |             |   |   |   |   |   |   |   |   |    |     |
| Once established, tussock areas should not be cut from mid-spring through to late August to give species sufficient time to flower and set seed. Cutting will comprise a 'hay cut' taken to minimum in late autumn or early spring if needed with no more than 50% of the resource cut on any one occasion. | ✓                                                                                                              | ✓   | ✓                               | ✓   |     |     |     |     | ✓   | ✓   | ✓   | ✓   |             |   |   |   |   |   |   |   |   |    |     |
| Sward to be cut to a minimum height of 150mm, leaving 1m unmanaged adjacent to retained / created woodlands and scrub.                                                                                                                                                                                      | ✓                                                                                                              | ✓   | ✓                               | ✓   |     |     |     |     | ✓   | ✓   | ✓   | ✓   |             |   |   |   |   |   |   |   |   |    |     |
| Weed control/removal of weeds. Pull out undesirable and persistent weed growth                                                                                                                                                                                                                              |                                                                                                                |     | ✓                               | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |     |     |             |   |   |   |   |   |   |   |   |    |     |
| <b>Flowering Lawn</b>                                                                                                                                                                                                                                                                                       |                                                                                                                |     |                                 |     |     |     |     |     |     |     |     |     |             |   |   |   |   |   |   |   |   |    |     |
| Sow seed mix.                                                                                                                                                                                                                                                                                               |                                                                                                                |     | ✓                               | ✓   |     |     |     | ✓   | ✓   |     |     |     |             |   |   |   |   |   |   |   |   |    |     |
| Cut grass and remove arisings from site, avoiding wet conditions.                                                                                                                                                                                                                                           |                                                                                                                |     | ✓                               | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |     |     |             |   |   |   |   |   |   |   |   |    |     |
| Control/remove weeds.                                                                                                                                                                                                                                                                                       |                                                                                                                |     |                                 | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |     |     |     |             |   |   |   |   |   |   |   |   |    |     |
| Water during periods of extreme drought.                                                                                                                                                                                                                                                                    |                                                                                                                |     |                                 | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |     |     |     |             |   |   |   |   |   |   |   |   |    |     |
| Repair worn areas.                                                                                                                                                                                                                                                                                          |                                                                                                                |     |                                 | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |     |     |     |             |   |   |   |   |   |   |   |   |    |     |
| <b>SuDS Wetland Meadow</b>                                                                                                                                                                                                                                                                                  | To be sown in the first growing season after the implementation in accordance with the construction programme. |     |                                 |     |     |     |     |     |     |     |     |     |             |   |   |   |   |   |   |   |   |    |     |
| Should vegetation exceed 40% of the basin/water surface, it will be removed by hand and placed on the bankside for 48 hours                                                                                                                                                                                 | ✓                                                                                                              | ✓   | Avoid amphibian breeding season |     |     |     |     |     |     | ✓   | ✓   | ✓   |             |   |   |   |   |   |   |   |   |    |     |

| Description of Works                                                          | Active Month |     |                                 |     |     |     |     |     |     |     |     |     | Active Year |   |                        |   |   |   |   |   |   |    |     |
|-------------------------------------------------------------------------------|--------------|-----|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|---|------------------------|---|---|---|---|---|---|----|-----|
|                                                                               | Jan          | Feb | Mar                             | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 1           | 2 | 3                      | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 10+ |
| Cutting / strimming on three year rotational basis during late autumn/winter. | ✓            | ✓   | Avoid amphibian breeding season |     |     |     |     |     |     | ✓   | ✓   | ✓   |             |   | 1 <sup>st</sup><br>1/3 |   |   |   |   |   |   |    |     |
| Annual monitoring to prevent spread of edge planting throughout basin.        |              |     |                                 |     |     |     |     |     |     | ✓   | ✓   |     |             |   |                        |   |   |   |   |   |   |    |     |
| Replace failed or poorly performing species, as required                      | ✓            | ✓   | ✓                               | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |             |   |                        |   |   |   |   |   |   |    |     |
| Control vegetation in areas of open water, such as blanket weed, as necessary |              |     | Avoid amphibian breeding season |     |     |     |     | ✓   | ✓   | ✓   |     |     |             |   |                        |   |   |   |   |   |   |    |     |

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