

Land West of Kingfisher Grove, Three Mile
Cross

**Landscape Environmental
Management Plan (LEMP)**
(to address the stated requirements of
Condition 16 of Planning Permission
APP/X0360/W/22/3304042)

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Quality Management	
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Contents

Text:

1	Introduction	3
2	Description and Evaluation of Features to be Managed	4
3	Ecological Trends and Constraints on site that might Influence Management	6
4	Aims and Objectives of Management	8
5	Appropriate Management Options for Achieving Aims and Objectives	12
6	Prescriptions for Management Actions	13
7	Responsibilities for Implementation of the plan and Funding Mechanism	22
8	On-going monitoring and remedial measures	23
9	Conclusions	24

Plans:

Plan 5796/LEMP1	Location of Management Areas
Plan 5796/LEMP2	Habitat Management Areas

Appendices:

Appendix 5796/LEMP1	Landscape Planting Plans (David Jarvis Associates Ltd)
Appendix 5796/LEMP2	Management Activity Schedules
Appendix 5796/LEMP3	Work Schedule

1 Introduction

1.1 Background and Permitted Development

- 1.1.1 Aspect Ecology is acting on behalf of Sovereign Network Group in respect of ecological matters at land west of Kingfisher Grove, Three Mile Cross centred at grid reference SU 7095 6727 (see Plan 5796/LEMP1), hereafter referred to as 'the site'.
- 1.1.2 The site is the subject of Outline planning permission, granted at appeal on 31 January 2023 (ref: APP/X0360/W/22/3304042), for the proposed erection of 49 affordable dwellings with new publicly accessible open space and access. The outline planning application was informed by ecological survey and assessment work, as reported within the submitted Ecological Appraisal (Aspect Ecology, dated September 2020) and Protected Species Report (Aspect Ecology, dated September 2020), along with an Update Biodiversity Report (Aspect Ecology, dated October 2022) prepared to inform the appeal. In addition, in order to update the previous work and ensure current considerations are based on up-to-date information in regard to the site, further updated survey work has been undertaken at the site during 2024, the results of which are set out within the Updated Ecological Appraisal (ref: 5796-04 UEA vf, dated July 2024).
- 1.1.3 The outline planning permission is subject to a number of conditions, of which condition 16 relates to ecological matters, requiring the submission and approval of a Landscape Environmental Management Plan (LEMP).

1.2 Planning Condition 16

- 1.2.1 Planning Condition 16 states:

'Prior to the commencement of the development a Landscape Environmental Management Plan (LEMP), in accordance with the Update Biodiversity Report by Aspect Ecology dated October 2022, including long term design objectives, management responsibilities, timescales, and maintenance schedules for all landscape areas, other than privately owned domestic gardens, which delivers and demonstrates a habitat and hedgerow biodiversity net gain shall be submitted to and approved in writing by the local planning authority. The development shall be carried out in accordance with the approved LEMP.'

1.3 Biodiversity Net Gain

- 1.3.1 The details of how the proposals demonstrate a Biodiversity Net Gain are provided within the submitted Biodiversity Net Gain Report (Aspect Ecology, October 2022) and Update Biodiversity Net Gain Report (Aspect Ecology, August 2024), which should be read in conjunction with this report.

1.4 Purpose of the Report

- 1.4.1 This purpose of this document is therefore to provide details relating to the required Landscape Environmental Management Plan (LEMP), in order to address the stated requirements of planning condition 16. Information set out includes protection and mitigation strategies in respect of retained habitats and notable / protected faunal species, with associated responsibilities set out in order to fully safeguard these habitats and species during site clearance, ground works and the construction phase of the development, with reference to the previously submitted information and specific requirements set out in the planning condition where appropriate.

2 Description and Evaluation of Features to be Managed

2.1 Extent of Management Areas

- 2.1.1 Details of the proposed habitats and planting at the site are set out at the detailed landscape layout plan (ref: 3249-5-2-DR-5000-P4 'Landscape Masterplan'), prepared by David Jarvis Associates Ltd (see Appendix 5796/LEMP1).
- 2.1.2 This Landscape and Ecological Management Plan (LEMP) relates to areas of open space, outside of private curtilages (e.g. gardens, driveways, and associated ornamental areas), subject to managed works carried out by the appointed management company within the development (as identified at Plan 5796/LEMP1).

2.2 Existing Habitat Features

- 2.2.1 During the ecological surveys undertaken at the site to date, the site has been recorded to be dominated by species-poor semi-improved grassland fields with boundary habitats comprising hedgerows, trees, blackthorn scrub, and tall ruderal vegetation. A single building is present in the north of the site, with an associated area of hardstanding.
- 2.2.2 The majority of the habitats within the site are to be removed/replaced under the approved development, with the exception of the southern grassland field and the boundary hedgerows and ditches which will be retained and enhanced and / or subject to ongoing management.

2.3 New Habitat Features

- 2.3.1 In addition to the above, a variety of new ecologically diverse habitats will be created, as set out within the submitted landscape masterplan. Habitats to be created that will also be subject to ongoing management activities and are anticipated to provide ecological benefits within the development are identified below:

- Native trees and shrubs;
- Native hedgerows;
- Wildflower grassland;
- Flowering Lawn;
- Ponds; and
- Ornamental Planting

2.4 New Faunal Features

- 2.4.1 In addition to the habitats detailed above a number of faunal enhancements will be provided in accordance with the information previously submitted, including:
- Bat boxes
 - Bird boxes
 - Dormouse boxes
 - Garden fence cut-outs
 - Invertebrate habitat piles / loggeries

- Bee bricks

2.4.2 These features will be subject to ongoing management, where appropriate, as discussed below.

3 Ecological Trends and Constraints on site that might Influence Management

3.1 Habitat Trends and Constraints

- 3.1.1 As set out above, and within the previously submitted information, the existing habitats within the site are dominated by species-poor semi-improved grassland fields, along with a single building and associated hardstanding, hedgerows, trees, blackthorn scrub, and tall ruderal vegetation. The majority of the on-site habitats are not considered to represent any significant ecological constraint and are not likely to be subject to any ecological trend that will materially influence the habitat management in perpetuity of the scheme. The on-site hedgerows are important ecological features, however, these are to be largely retained within the scheme with any losses being of minimal ecological significance. The small number of on-site trees identified to be important ecological features are fully retained within the scheme.

3.2 Faunal Trends and Constraints

- 3.2.1 **Bats.** A number of trees within the site have been identified as providing potential to support roosting bats. Should management works be required to trees which have features such as holes, cracks, splits or loose bark, a suitably qualified ecologist will be contacted for further advice (e.g. Aspect Ecology Ltd). The permitted development will incorporate additional roosting sites for bats, through the provision of bat boxes on retained trees, and such features should therefore be taken into account, where these are present, in order to avoid disturbance or damage during any vegetation management works.

- 3.2.2 [REDACTED]

- 3.2.3 **Dormouse.** The nature of the habitats present within the site is such that opportunities for dormouse are present within existing field boundary vegetation such as hedgerows. Surveys in 2020 identified the presence of Dormouse on site within on-site hedgerows, as such habitat management affecting suitable habitats (hedgerows, scrub and trees/woodland habitats) must occur outside of peak hibernation and breeding periods. The permitted development will incorporate additional nesting sites for Dormouse, through the provision of Dormouse nest boxes, and such features should therefore be taken into account, where these are present, in order to avoid disturbance or damage during any vegetation management works.

- 3.2.4 **Nesting Birds.** The nature of the habitats present within the site is such that opportunities for common nesting bird species are present within existing field boundary vegetation such as hedgerows and trees, the majority of which will be retained under the permitted development. Nonetheless, as all wild birds and their nests receive protection under Section 1 of the Wildlife and Countryside Act 1981 (as amended) in respect of killing and injury, and their nests, whilst being built or in use, cannot be taken, damaged or destroyed, consideration should be made during any minor habitat removal or management activities associated with vegetation and/or buildings within the nesting bird season. The permitted development will incorporate additional nesting sites for birds, through the provision of bird nest boxes on retained trees, and such features should therefore be taken into account,

where these are present, in order to avoid disturbance or damage during any vegetation management works.

- 3.2.5 **Reptiles and Great Crested Newt.** No reptiles were recorded within the site during survey work undertaken in 2020 and no Great Crested Newts were recorded in waterbodies within 250m of the site in 2020 or 2024. As such, given the presence / absence surveys undertaken have established the likely absence of reptiles and Great Crested Newt within the site, it is considered that they are unlikely to represent a current constraint to management activities at the site.

4 Aims and Objectives of Management

4.1 Aims and Objectives

4.1.1 The permitted development provides opportunities to retain and enhance habitats, along with creating new habitats and providing faunal enhancements, as set out above.

4.1.2 The LEMP aims to prescribe effective habitat management at the site for the benefit of biodiversity and landscape amenity. These benefits will primarily be achieved through the planting and long term suitable management of new native trees and shrubs, native hedgerows, wildflower grassland, flowering lawn, and creation of ponds, in addition to long-term management of these newly created habitats. Where possible, the existing hedgerows and trees have been incorporated into the layout and will also be subject to positive ecological management

4.2 To achieve these aims, the key overarching objectives of the plan are as follows:

- Retain the existing features of greatest ecological and landscape value within the site;
- Introduce and establish new habitats to benefit biodiversity and landscape amenity;
- Contribute to local and national objectives, including habitat creation and the provision of opportunities for local Priority Species; and
- Introduce long-term management to achieve ongoing biodiversity and landscape benefits under the completed development.

4.3 Specific Aims and Objectives in Relation to Individual Habitats

Wildflower Grassland (Including Attenuation and Other Grassland where appropriate)

4.3.1 The aims of the wildflower grassland management will be to produce a species-rich sward, including maximising species and herb content. In particular the aims of the management will be to achieve at least 'moderate' condition under Biodiversity Net Gain (BNG) guidance, in line with the permitted information in relation to the relevant areas under the planning permission.

4.3.2 In addition, management of attenuation (SUDs) areas and other grassland will be directed to maximise the habitat condition achieved in line with wildflower grassland areas, albeit reflecting associated relevant management constraints (such as flood drainage requirements) where these are present.

4.3.3 Accordingly, a summary of the relevant criteria and associated measures is set out within table 4.1., below:

Table 4.1. Summary of grassland condition criteria (Other Neutral Grassland) for wildflower grassland (ref: Statutory Biodiversity Metric Condition Assessment – November 2023)

Ref.	Criterion	Targeted Pass/Fail	Notes/Consideration in regard to management
1	The parcel represents a good example of its habitat type, with a consistently high proportion of	Pass (required for	<i>Likely to be achievable through species enhancement measures: definition for g3c "Other Neutral Grassland", in particular with <30% Perennial Rye-grass and between 9-15 further</i>

	characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description).	moderate or good condition)	<i>species present per m². Initial management measures will include measures to reduce nutrient enrichment and encourage increased species diversity (e.g. frequent hay cuts following initial overseeding and removal of arisings to discrete piles at the margins).</i>
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass	<i>Grassland management to ensure varied sward height maintained, through directed cuts, leaving small areas uncut on rotation.</i>
3	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Pass	<i>In general ground disturbance to be minimised to prevent extensive bare ground (>5%), however visitor access likely to result in minor disturbance and bare ground, or alternatively, where lacking (<1%) discrete disturbance could be implemented in order to ensure localised areas of bare ground if required/desirable.</i>
4	Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	Pass	<i>Bracken not previously identified as significant presence and therefore unlikely to provide an issue. Ongoing management of grassland directed to include control of scrub/Bramble will ensure this criterion is met.</i>
5	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 the WCA) are present, this criterion is automatically failed.	Pass	<i>Schedule 9 species not previously recorded within the existing grassland habitats. Selective removal of any colonising invasive non-native species and/or management of undesirable species to be undertaken to ensure this criterion is met.</i>
Total: <i>(5 passes required for 'good' condition, 3-4 passes for 'moderate' condition and 0-2 for 'poor' condition).</i>		5 passes	<i>Likely that good condition could be achieved, representing an ongoing aim, albeit in order to achieve the permitted BNG levels, at least moderate condition required.</i>

Scrub

- 4.3.4 The aims of the scrub management will be to produce a varied habitat structure with denser areas of cover and more open vegetation formed by native species. In particular the aims of the management will be to achieve at least 'moderate' condition (with reference to relevant BNG guidance) in order to ensure consistency with the Biodiversity Net Gain information submitted to inform the planning application.
- 4.3.5 Accordingly, a summary of the relevant criteria and associated measures is set out within table 4.2., below:

Table 4.2. Summary of scrub condition criteria (ref: Statutory Biodiversity Metric Condition Assessment – November 2023)

Ref.	Criterion	Targeted Pass/Fail	Notes/Consideration in regard to management
1	The parcel represents a good example of its habitat type – the appearance of the vegetation closely matches its UKHab description (where in its natural range). At least 80% of scrub is native; There are at least three native woody species, with no one species comprising more than 75% of the cover (except hazel, common juniper, sea buckthorn or box, which can be up to 100% cover).	Pass	<i>Mixed native scrub planting to incorporate 5-10 species proposed (see proposed landscape planting information), with a no single species anticipated to dominate, whilst ongoing management measures (including selective removal) will ensure diversity remains.</i>
2	Seedlings, saplings, young shrubs and mature (or ancient and veteran) shrubs are all present.	Pass	<i>Initial habitat creation will provide a single age range, albeit ongoing management will ensure mature shrubs develop whilst encouraging regeneration and development of seedlings and young shrubs.</i>
3	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of suboptimal condition make up less than 5% of ground cover.	Pass	<i>Schedule 9 species not previously recorded within the existing areas proposed for scrub planting. Selective removal of any colonising invasive non-native species and/or management of undesirable species to be undertaken to ensure this criterion is met.</i>
4	The scrub has a well-developed edge with scattered scrub and tall grassland and/or forbs present between the scrub and adjacent habitat.	Pass	<i>Scrub management to include formative pruning and selective thinning to maintain well-developed edge and scattered areas with surrounding grassland areas enabling development of tall grassland and herbs at the interface.</i>
5	There are clearings, glades or rides present within the scrub, providing sheltered edges.	Pass	<i>Scrub management to be directed to include formative pruning and selective thinning to ensure the presence of clearings and glades, including sheltered edges.</i>
Total: (5 passes required for 'good' condition, 3-4 passes for 'moderate' condition and 0-2 for 'poor' condition).		5 passes	<i>Good condition readily achievable representing an ongoing aim, albeit in order to achieve the permitted BNG levels, at least moderate condition required.</i>

Pond

4.3.6 The aims of the pond management will be to provide a valuable wildlife habitat, including for a range of faunal species. The aim of management will be to develop a healthy aquatic and marginal flora and fauna representing priority habitat, albeit in line with previously submitted BNG information, minimum target requirements are for non-priority habitat in at least moderate condition (with reference to relevant BNG guidance) in order to ensure consistency with the Biodiversity Net Gain information submitted to inform the planning application.

4.3.7 Accordingly, a summary of the relevant criteria and associated measures is set out within table 4.3., below:

Table 4.3. Summary of pond condition criteria (ref: Statutory Biodiversity Metric Condition Assessment – November 2023)

Ref.	Criterion	Targeted Pass/Fail	Notes/Consideration in regard to management
1	<i>The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.</i>	Pass	<i>Design and management for wildlife benefit, without water input from polluted sources.</i>
2	<i>There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.</i>	Pass	<i>Creation/enhancement of semi-natural habitats of wildlife value including wildflower grassland, woodland and scrub in all directions as part of the permitted development extending substantially greater than 10m.</i>
3	<i>Less than 10% of the water surface is covered with duckweed <i>Lemna</i> spp. or filamentous algae.</i>	Pass	<i>Management measures, including low nutrient input to avoid excessive Duckweed or filamentous algae. Measures to be put in place to remove excessive levels should these develop.</i>
4	<i>The pond is not artificially connected to other waterbodies, such as agricultural ditches or artificial pipework.</i>	Pass / Fail	<i>Wildlife pond (south of the site) specifically designed to provide wildlife benefit and will not be artificially connected to such features in line with the permitted details. Northern pond likely to be connected to SUDs and may therefore not pass this criterion.</i>
5	<i>Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework.</i>	Pass / Fail	<i>Wildlife pond (south of the site) specifically designed to provide wildlife benefit and water levels will therefore not be controlled using artificial dams, pumps or pipework. Northern pond likely to be connected to SUDs and may therefore not pass this criterion.</i>
6	<i>There is an absence of listed non-native plant and animal species.</i>	Pass	<i>Selective removal of any colonising invasive non-native species to be undertaken where necessary to ensure this criterion is met.</i>
7	<i>The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.</i>	Pass	<i>Wildlife pond specifically designed to provide wildlife benefit and will not be artificially stocked with fish.</i>
8	<i>Emergent, submerged or floating plants (excluding duckweed) cover at least 50% of the pond area which is less than 3 m deep.</i>	Pass	<i>Wildlife pond specifically designed to provide wildlife benefit, anticipated to be less than 3m depth throughout. Native aquatic and marginal planting provided and management aimed at passing this criterion, which is likely to be achievable in the long term.</i>
9	<i>The pond surface is no more than 50% shaded by adjacent trees and scrub.</i>	Pass	<i>Management measures associated with surrounding habitats directed to ensure this criterion is met.</i>
Total: <i>(9 passes required for 'good' condition, 6-8 passes for 'moderate' condition and 0-5 for 'poor' condition).</i>		7-9 passes	<i>Moderate condition readily achievable representing an ongoing aim in order to achieve the permitted BNG levels, albeit good condition may be achievable for the southern pond in particular.</i>

5 Appropriate Management Options for Achieving Aims and Objectives

5.1 Introduction

- 5.1.1 To achieve the above aims and objectives, management actions are summarised below, according to three main components: existing features proposed habitats, and proposed faunal enhancements. Prescriptions for each of these are set out in the following sections.

5.2 Management of Existing Features

- Trees and Hedgerows;
- Enhanced Wildflower Grassland; and
- Ditches.

5.3 Management of New Habitats

- Tree, Hedgerow and Shrub Planting;
- Flowering Lawn;
- Pond creation; and
- Ornamental Planting.

5.4 Management of New Faunal Enhancements

- Bat and Bird Boxes;
- Dormouse boxes;
- Fence Cut-outs;
- Log Piles and Hibernacula; and
- Bee Bricks.

6 Prescriptions for Management Actions

6.1 Introduction

- 6.1.1 Individual prescriptions for the management actions for each habitat (as shown on Plan 5796/LEMP2) are set out below, with management activity sheets for use by the appointed contractor provided at Appendix 5796/2, along with a works schedule detailing optimal months for management at Appendix 5796/3.

6.2 Retained Trees and Hedgerows

- 6.2.1 **Initial Management.** Retained trees and hedgerows will be enhanced and protected during the construction phase, therefore ensuring the maintenance of such habitats. Protection measures will include the erection and maintenance of protective fencing, in the form of Heras fencing (or similar), in accordance with British Standard BS5847:2012. In addition to this, a 5m buffer will be maintained around retained trees and hedgerows where the consented site layout allows, where practicable, in line with the above specifications. Personnel are only permitted to enter these areas for the purpose of managing the vegetation.
- 6.2.2 Any gaps in the retained hedgerows will be planted up with native woody species, similar to those species already present within the hedgerows, to strengthen and enhance the existing boundary corridors, particularly where existing gaps have opened up or dead / dying vegetation is present. Replanting of failed specimens will be undertaken, as required. Accordingly, minimal specific initial management is likely to be needed in regard to these habitats.
- 6.2.3 **Ongoing management.** Management of retained boundary hedgerows will be undertaken by a management company in accordance with ecological principles. Minimal clipping will be undertaken with the aim that the hedgerows retain their current stature and continue to provide a potential corridor for wildlife movement, whilst allowing the structure of hedgerows to improve and preventing encroachment into adjacent habitats.
- 6.2.4 Hedgerow management will depend on the existing condition of the hedgerow. For hedgerows which have recently been managed, these will be trimmed to a height of 2m on a 2-3 year rotation, leaving approximately a third of the hedgerow un-trimmed during individual cuts to maintain opportunities for wildlife at all times. Only recent growth will be trimmed, with ideally a short section of the previous year's growth left to avoid damaging the same wood each year.
- 6.2.5 For hedgerows which have not been subject to any recent management and are tall and outgrown, these will be maintained at their existing height, with trimming focused on maintaining the width to prevent the hedgerow encroaching into the adjacent habitats / building footprint.
- 6.2.6 Retained trees, including those within hedgerows, will be subject to management on an 'as needed' basis and will aim to maintain their existing height. This may include thinning out or pruning of species to enhance habitat structure or reduce shading, or coppicing on rotation.
- 6.2.7 Arisings from any management works will be used to re-stock log piles, with excess material disposed of as appropriate through chipping or removal from the site.

- 6.2.8 Roosting bats.** As previously stated, a number of trees within the site are recorded to have suitability to support roosting bats. In order to minimise the risk to bats, should management works be required to trees which have features such as holes, cracks, splits or loose bark be required, a suitably qualified ecologist will be contacted for further advice (e.g. Aspect Ecology Ltd).
- 6.2.9 Nesting Birds.** The occupied nests of breeding birds are protected under the *Wildlife and Countryside Act 1981* (as amended). All wild birds receive protection under Section 1 of the Wildlife & Countryside Act 1981 (as amended) such that, with certain exceptions, it is an offence to intentionally:
- Kill, injure or take any wild bird;
 - Take, damage or destroy the nest of any wild bird whilst in use or being built;
 - Take or destroy an egg of any wild bird.
- 6.2.10** Accordingly, to avoid a potential offence under the relevant legislation, no clearance of suitable vegetation (hedgerows or trees) should be undertaken during the bird-nesting season (1st March to 31st August inclusive). If this is not practicable, any potential nesting habitat to be removed should first be checked by a competent ecologist in order to determine the location of any active nests. Any active nests identified would then need to be cordoned off (minimum 5m buffer) and protected until the end of the nesting season or until the birds have fledged. These checking surveys would need to be carried out no more than three days in advance of the management works.

6.3 Retained and Enhanced Wildflower Grassland

- 6.3.1 Initial Management.** New areas of wildflower grassland will be created within the development upon completion of construction works. These will be seeded with Emorsgate EM10F 'Tussock Wild Flowers' and EM3F 'Special General Purpose Wild Flowers' to ensure a diverse sward is provided to benefit a wide range of faunal species.
- 6.3.2** Prior to seeding, these areas will be treated with a non-selective, non-persistent herbicide (such as Glyphosate) if required to reduce any colonising plants or scrub regrowth. Any surface vegetation will then be dug in using a rotavator, followed by harrowing or raking to produce a medium tilth, and rolling or treading to produce a firm surface.
- 6.3.3** These areas will then be seeded with Emorsgate EM10F and EM3F. The seed will be surface sown and can be applied by machine or broadcast by hand at the rate specified by the supplier. The seed will be firmed in following sowing with a roller or by treading to give good soil / seed contact. Sowing will not be carried out during periods when the ground is dry, waterlogged or frozen and is ideally undertaken in autumn or spring.
- 6.3.4** Depending on weather conditions, regular watering of the wildflower grassland will be undertaken for the first two weeks. Following this, watering will be undertaken during any prolonged dry spells.
- 6.3.5** Initial frequent monitoring of newly created wildflower grassland areas should take place during the first 6-12 months if required to assist the successful establishment of new grassland vegetation and minimise dominance of ruderal weeds.
- 6.3.6** Any failed areas of grassland may be re-seeded/over-seeded as required using a suitable seed mixture (wherever possible, care should be taken to avoid risk of importing non-native

species or variants within seed mixtures), albeit it should be noted that many of the species provided would not be expected to flower within the first year following planting.

6.3.7 In addition, ruderal colonising weeds likely to dominate the areas of grassland if left untreated such as docks and thistles will be subject to spot treatment with herbicide if required during the first year to allow successful establishment of a healthy sward.

6.3.8 **Ongoing management.** Once established, the wildflower grassland to be provided requires minimal maintenance. Nevertheless, rotational cutting will be undertaken comprising dividing the wildflower grassland into three areas and cutting the first area in the first year, the second in the second year and the third in the third year. This will then be repeated for subsequent years to create a structurally diverse sward. Cutting will also serve to prevent encroaching scrub from dominating the grassland, albeit small areas of scrub can be left undisturbed to provide additional opportunities for wildlife.

6.3.9 Arisings from cutting of grassland areas will be removed from the sward (subject to cuts being taken after seed-set has finished and seeds likely to have dropped) to prevent the build-up of nutrients and smothering of new growth, thereby helping to promote a species-rich sward. Piles of grass cuttings can be created at the site margins to form additional wildlife opportunities, albeit these should be limited in number to ensure they do not suppress large areas of grassland habitat.

6.3.10 The diversity of the sward will be monitored, and overseeding will be undertaken with an appropriate seed mix, as required.

6.3.11 No fertilisers or herbicides shall be applied to the wildflower area, except to specifically spot treat unwanted ruderal or pernicious weed species within the sward.

6.1 SUDS and Retained Ditches

6.1.1 **Initial Management.** In order to safeguard the ditches and other SUDs features against any potential run-off or pollution events during construction, the following safeguards will be implemented:

- Storage areas for chemicals, fuels, etc. will be sited well away from the ditches (minimum 10m) and stored on an impervious base within an oil-tight bund with no drainage outlet. Spill kits with sand, earth or commercial products approved for the stored materials shall be kept close to storage areas for use in case of spillages;
- Where possible, and with prior agreement of the sewage undertaker, silty water should be disposed of to the foul sewer or via another suitable form of disposal, e.g. tanker off-site;
- Water washing of vehicles, particularly those carrying fresh concrete and cement, mixing plant, etc. will be carried out in a contained area as far from the ditches as practicable (minimum 10m), to avoid contamination; and
- Refuelling of plant will take place in a designated area, on an impermeable surface, away from the ditches (minimum 10m).

6.1.2 **Ongoing Management.** Long term management of the ditches, SUDs and associated marginal vegetation will focus on maximising benefits for wildlife, including in particular aiming to develop and maintain a healthy marginal and aquatic flora and fauna, whilst continuing to facilitate flood drainage functions. In particular the following

measures/approach will be followed, guided and updated through the ongoing monitoring and inspections:

- Any invasive species present will be removed which will serve to stabilise the banks and allow other species to colonise.
- Frequent checks will be made for physical obstructions to the water flow such as fallen trees, large rocks and other waste material including litter or grass cuttings. Any such waste will be removed and green waste will be left a safe distance from the ditches temporarily to allow organisms to re-enter the ditches.
- Vegetation (grass, weeds, reeds, shrubs and trees) will be kept under control through regular mowing and trimming, although management of trees and shrubs will not take place during the bird nesting season (1st March to 31st August inclusive) and mowing of banks will be minimised during this time in order to minimise disturbance to nesting birds and spawning fish. This maintenance of vegetation will maintain an open structure and light levels along the ditches and will help to maintain an unobstructed water flow.
- De-silting of the ditches/SUDs will be undertaken periodically as required, with silt temporarily deposited on top of the ditch banks to allow organisms to move back into the ditches.

6.2 Native Trees and Shrubs

- 6.2.1 **Initial Management.** New native tree and shrub planting will be subject to weed control to promote its growth, though the application of mulch in early summer (April), the use of mulch mats around the base, or use of herbicides in a 1m diameter around the base.
- 6.2.2 Tree guards or shelters will be used to protect new trees from potential grazing damage (e.g. Rabbits) and weed control and watering will be undertaken during the initial management phase to ensure rapid establishment.
- 6.2.3 New planting growth will be monitored every six months during the first year following planting and annually thereafter, with weed control, watering, replacement of tree guards and replanting of failed specimens undertaken as required.
- 6.2.4 **Ongoing Management.** New native tree and shrub planting will generally only be subject to management on an 'as needed' basis, informed by checks which will be undertaken every 3 years by a suitably experienced arboriculturalist or landscape contractor. This may include thinning out or pruning of tree / shrub species to enhance habitat structure or reduce shading, coppicing on rotation and removal of non-native species. Newly planted areas in particular will not be subject to any substantial works in the short-term to allow establishment. Once established, tree shelters will be removed, and stakes provided if required. Ongoing management will ensure the planting does not encroach into adjacent habitats. Following the update surveys the management plan will be updated if required.
- 6.2.5 A proportion of arisings from management works will be used to restock log piles, with excess material disposed of as appropriate through chipping or removal from the site. As set out above, no substantial works to woody vegetation (other than trimming of minor growth) will take place between 1st March to 31st August inclusive, in order to safeguard nesting birds.

6.3 Native Hedgerows

- 6.3.1 **Initial Management.** New native hedgerows will be planted in a double staggered row, with approximately 30cm in between each line of planting at a minimum density of five plants per metre. Trees will be planted far enough apart to allow them to develop full crowns without causing over-shading. All hedgerow planting trenches are to be excavated to a minimum depth of 300mm. Planting shall be carried out, where practicable, during the period of 1st November to 31st March inclusive, when the ground is not frozen or waterlogged. Individual plants within the hedgerow shall be watered into field capacity immediately after planting and mulched with 75mm depth of medium grade crushed mulch. Tree guards or shelters will be used to protect new trees from potential grazing damage (e.g. Rabbits).
- 6.3.2 New planting growth will be monitored every six months during the first year following planting and annually thereafter, with weed control, watering, replacement of tree guards and replanting of failed specimens undertaken as required.
- 6.3.3 **Ongoing management.** Native hedgerows will be regularly trimmed on a rotational basis every two or three years, leaving approximately a third of the hedgerow un-trimmed during individual cuts to maintain opportunities for wildlife at all times and allow the hedgerow to incrementally increase in height. Only recent growth will be trimmed, with ideally a short section of the previous year's growth left to avoid damaging the same wood each year. Any gaps will be re-planted with native species. The hedgerows will not be cut to a height of less than 2m. This should provide dense, well-structured and diverse hedgerows.
- 6.3.4 Once established, tree guards or shelters will be removed, and stakes provided if required. As set out above, no substantial works to woody vegetation (other than trimming of minor growth) will take place between 1st March to 31st August inclusive, in order to safeguard nesting birds.

6.4 Flowering Lawn

- 6.4.1 **Initial Management.** New areas of flowering lawn will be created within the site upon completion of construction works. These will be seeded with Emorsgate EL1 'Flowering Lawn Mixture' to ensure a diverse sward is provided to benefit a wide range of faunal species, whilst ensuring a short sward height is maintained to encourage local residents to make use of the space as an amenity area.
- 6.4.2 Prior to seeding, these areas will be treated with a non-selective, non-persistent herbicide (such as Glyphosate) if required to reduce any colonising plants or scrub regrowth. Any surface vegetation will then be dug in using a rotavator, followed by harrowing or raking to produce a medium tilth, and rolling or treading to produce a firm surface.
- 6.4.3 These areas will then be seeded with Emorsgate EL1. The seed will be surface sown and can be applied by machine or broadcast by hand at the rate specified by the supplier. The seed will be firmed in following sowing with a roller or by treading to give good soil / seed contact. Sowing will not be carried out during periods when the ground is dry, waterlogged or frozen and is ideally undertaken in the autumn or spring.
- 6.4.4 Depending on weather conditions, regular watering of the wildflower grassland will be undertaken for the first two weeks. Following this, watering will be undertaken during any prolonged dry spells.

6.4.5 **First Year Management.** The initial weed growth in the first spring following seeding is likely to be high. As such, it will be necessary to undertake regular mowing / cutting in the first year, between spring and autumn, to control weeds. This would involve cutting the sward regularly or as required to maintain a sward height of 40-60mm for the first growing season. Arisings from the cutting will be removed from the grassland immediately to keep nutrient levels low and avoid smothering new growth. Regular pulling or spot treatment with herbicide may also be necessary.

6.4.6 **Ongoing management.** Once established, the flowering lawn will be subject to regular mowing to a height of 25-40mm to maintain a short sward and encourage local residents to make use of the space as an amenity area.

6.5 Ornamental Planting

6.5.1 Ornamental planting that will be subject to management within the built development includes the areas of planted beds and bulb planting, along with ornamental hedges.

6.5.2 **Initial Management.** Intensive management/aftercare of the new ornamental planting will take place to ensure successful establishment of a healthy vegetation. This will include initial monitoring and replacement of any failed areas, watering if required during dry periods.

6.5.3 **Ongoing Management.** Areas of new ornamental planting/introduced shrub will function in providing an attractive landscape within residential areas and as such will be subject to regular monitoring and maintenance to maintain a neat form and dense vegetation in line with landscaping and amenity requirements. Where significant clipping of vegetation is required, this should be undertaken outside of the bird nesting season (i.e. outside of 1st March to 31st August inclusive).

6.6 Ponds

Initial Management. Where possible, natural colonisation of vegetation will be favoured where possible, albeit it is envisaged that some planting will be required to assist swift and favourable establishment. Wherever possible, management measures will be minimised during the initial period following creation in order to allow successful colonisation and development, albeit any vegetative die-back may need to be replaced. Partially natural colonisation in this manner is likely to take place over a period of at least 2-3 years to reach a relatively stable community.

6.6.1 During the early stages following creation, whilst the vegetation is establishing, the possibility of colonisation by invasive/alien plant species is high. As such, a watching brief will be maintained for the presence of invasive exotic species such as:

- New Zealand Swamp-stonecrop *Crassula helmsii*
- Parrot's-feather *Myriophyllum aquaticum*
- Floating Pennywort *Hydrocotyle ranunculoides*
- Water Primrose *Ludwigia grandiflora*
- Water Fern *Azolla filiculoides*

6.6.2 If found to be present, early intervention/removal will help to control the spread of these species, which if left unmanaged may out compete native flora.

6.6.3 Naturally colonising vegetation may include species such as Greater Reedmace *Typha latifolia*, Common Reed *Phragmites australis* and Reed Sweet-grass *Glyceria maxima*. These species can be very invasive, rapidly dominating areas of shallow water, and accordingly, ongoing management will include monitoring (particularly during this initial establishment phase) and control of these species if required to prevent dominance whilst maintaining cover and benefits provided by this habitat type. Similarly, colonising vegetation would likely include scrub species such as Willows which favour damp ground. Whilst these would likely provide some valuable cover, such species can be invasive and encroach on open habitats, including potentially affecting the required functional properties of the attenuation pond for flood drainage. As such, in order to ensure the pond/wetland features provide long-term aquatic features and prevent any potential to increase scrub encroachment, whilst retaining associated flood drainage uses where these are relevant, any scrub colonisation will be closely monitored and controlled where necessary, particularly during the early colonisation stages when early colonists can take hold.

Ongoing Management. Ongoing management of ponds will be required in order to maximise the long-term ecological value of the site. Management will be undertaken in line with the following measures:

- Vegetation around the upper banks will be managed in line with the adjacent grassland areas (see above);
- Cutting of vegetation along the margins of any standing water and lower banks will be undertaken as required on a rotational basis with no more than 50% of the marginal vegetation being cut in a single year;
- Removal of submergent and floating vegetation (e.g. pondweed, duckweed) as required to maintain areas of open water wherever possible;
- Cutting back or dredging out of tall emergent vegetation (e.g. Reeds or Reedmace) to be minimised and only undertaken as required to prevent extensive encroachment/silting of open water areas and/or in line with drainage requirements;
- Dredging of accumulated sediment similarly to be minimised to avoid disturbance and undertaken on an 'as needed' basis; and
- Control or removal of any invasive/alien plant species and fish where required.

6.6.4 Generally, where such measures are required, all vegetation cutting and dredging works should be undertaken during the winter months (November to January). All arisings from wetland areas will be left on the bankside for at least 24 hours to enable trapped aquatic fauna to return to the wetland areas prior to removal from site.

6.6.5 The use of pesticides and fertilisers should be avoided where possible throughout the wildlife habitats and informal open space, but in particular within the vicinity of wetland features.

6.7 Faunal Enhancements

Bat, Bird, and Dormouse Boxes and Bee Bricks

6.7.1 The bat, bird, and Dormouse boxes and bee bricks are rot proof, extremely long lasting and require no specific maintenance. Nonetheless, an annual inspection of bat, bird, and Dormouse boxes and bee bricks that fall within areas of public open space will be undertaken to ensure they remain secured. These inspections can be conducted at any time of year, however any adjustments to the bat boxes (e.g. repositioning) should be undertaken, (under direct supervision from a suitably qualified / licensed ecologist where appropriate), in spring or autumn months when bats are less likely to be significantly

disturbed, any adjustments to bird boxes (e.g. re-positioning) should be undertaken in the winter months (i.e. outside 1st March to 31st August inclusive) when they are least likely to be in use, and any adjustments to Dormouse boxes should be undertaken, under direct supervision from a suitably qualified / licensed ecologist, during the winter months when dormouse are less likely to be significantly disturbed. Any damaged boxes will be replaced.

Garden Fence Cut-outs

- 6.7.2 As the garden fence cut-outs fall within private gardens, no ongoing maintenance is required.

Hibernacula and Log Piles

- 6.7.3 Hibernacula and log piles are long lasting in nature and their gradual decay is important to ensure they continue to provide benefits to a range of faunal species. As such, they should not require ongoing maintenance. Nonetheless, arisings from ongoing management within the site can be used to restock log piles.

6.8 General Maintenance Activities

- 6.8.1 A number of general measures should be implemented across the site to benefit wildlife wherever possible within the open space areas at the development site including:

- Avoiding the use of pesticides and fertilizers wherever possible, but in particular within the vicinity of the new balancing/attenuation ponds/wetland features;
- Given the close proximity of the proposed wildlife habitats to developed/commercial areas, it may be necessary to remove any litter that has been left or blown into this area and as such, regular checks should be undertaken of these habitats to remove any litter.
- Regular monitoring and inspection of habitat areas should be undertaken by the landscape maintenance contractor to establish the ongoing status of habitats and inform future management works and any alterations to the proposed management actions to benefit the wildlife and habitats present.

- 6.8.2 Further site husbandry issues that should be identified and reported to the relevant authority as appropriate include:

- Dog fouling issues;
- Fly-tipping;
- Arson incidents which have damaged the habitat; and
- Pollution incidents.

- 6.8.3 All landscape maintenance operations, where they do not conflict with ecology operations, will be in accordance with BS 4428:1989 'Code of practice for general landscape operations'. Ongoing landscape maintenance operations are to be in accordance with sound ecological principles, and where relevant to be in accordance with BS 7370-4:1993 'Grounds Maintenance Recommendations for maintenance of soft landscape'.

- 6.8.4 An annual check will be made on the condition of the general greenspace infrastructures, such as surfaced paths, with repairs or remedial works implemented as necessary.

6.9 Work schedule

- 6.9.1 The above management operations have been incorporated into a work schedule setting out timings for the implementation of the ecological and landscape mitigation and enhancement measures for use by the appointed contractor, see Appendix 5796/LEMP3. The schedule covers the management activities required during year 1 and years 2-5 after which a review of the LEMP will be carried out to assess whether any changes to the management prescriptions are required (see below).

7 Responsibilities for Implementation of the plan and Funding Mechanism

7.1 Initial Measures

- 7.1.1 In the first instance Sovereign Network Group will be responsible for the funding and implementation of any safeguarding and mitigation measures during construction and initial habitat creation and maintenance.

7.2 Ongoing Management

- 7.2.1 Following the completion of development works and habitat creation, it is anticipated that long-term responsibility for management of the open space areas will be handed over to a nominated management company/landscape maintenance contractor, who will then implement the ongoing management prescriptions.

8 On-going monitoring and remedial measures

8.1 Implementation

- 8.1.1 This LEMP shall be implemented in accordance with the approved details within three months of the first occupation of the development. Long-term monitoring of the newly established habitats will be undertaken following establishment, to evaluate progress and to ensure appropriate management is being implemented at the site. Regular / routine monitoring of these areas will be undertaken at least annually by the appointed landscape maintenance contractor, to ensure the habitats are developing as expected, with any required remediation measures carried out as appropriate.
- 8.1.2 Bat, bird, and Dormouse boxes on trees and log piles/hibernacula will be checked as part of the annual maintenance check with bat, bird, and Dormouse boxes replaced as required. A suitably qualified ecologist will be contacted for further advice where necessary, for example if management activities could potentially affect protected species (such as bats).

8.2 Monitoring and Reporting

- 8.2.1 A formal record/log of management activities undertaken will be kept, along with details of vegetation development (and any informal records of associated wildlife use where appropriate), which should be used to inform and provide suitable justification for any alterations to the management activities undertaken. An annual summary of the measures undertaken, and any snags or deviations should be prepared. Should measures not have been undertaken in line with the requirements, or other issues identified, the annual summary should include actions to remedy these, including dates, timelines and responsibility. A copy of the annual summary should be kept with the log/record and made available upon request for inspection.
- 8.2.2 The LEMP will be reviewed periodically, every 5 years for the first 30 years to assess the effectiveness of the restoration / management prescriptions according to the identified aims and objectives.
- 8.2.3 Where modifications to the management prescriptions are required, the LEMP will be updated as necessary by the appointed management company.

9 Conclusions

- 9.1 Aspect Ecology has been commissioned by Sovereign Network Group to produce a Landscape and Ecological Management Plan (LEMP) to satisfy the requirements of Condition 16 of the planning consent (ref: APP/X0360/W/22/3304042) granted at appeal.
- 9.2 Management prescriptions are set out for new vegetated areas, in order to maximise ecological value where possible, whilst taking into account the landscape requirements and setting of the site. Prescriptions for management actions in relation to each habitat/vegetation type are provided within the individual schedules at Appendix 5796/LEMP2, whilst a work schedule/annual work plan is provided at Appendix 5796/LEMP3.
- 9.3 Accordingly, it is considered that, subject to the implementation of the measures set out within this document the requirements of condition 16 of the planning permission for the site will have been met, and the relevant requirements of the condition can therefore be suitably discharged.

Plan 5796/LEMP1:

Location of Management Areas



Key:



Site Boundary



Management Areas



Aspect Ecology Limited - West Court - Hardwick Business Park
Noral Way - Banbury - Oxfordshire - OX16 2AF
01295 279721 - info@aspect-ecology.com - www.aspect-ecology.com

Land East of Woodcock Lane, Three
Mile Cross, Reading
Management Areas

PROJECT

TITLE

5796/LEMP1

DRAWING
NO.

A/BG

REV

October 2024

DATE

LP/BG

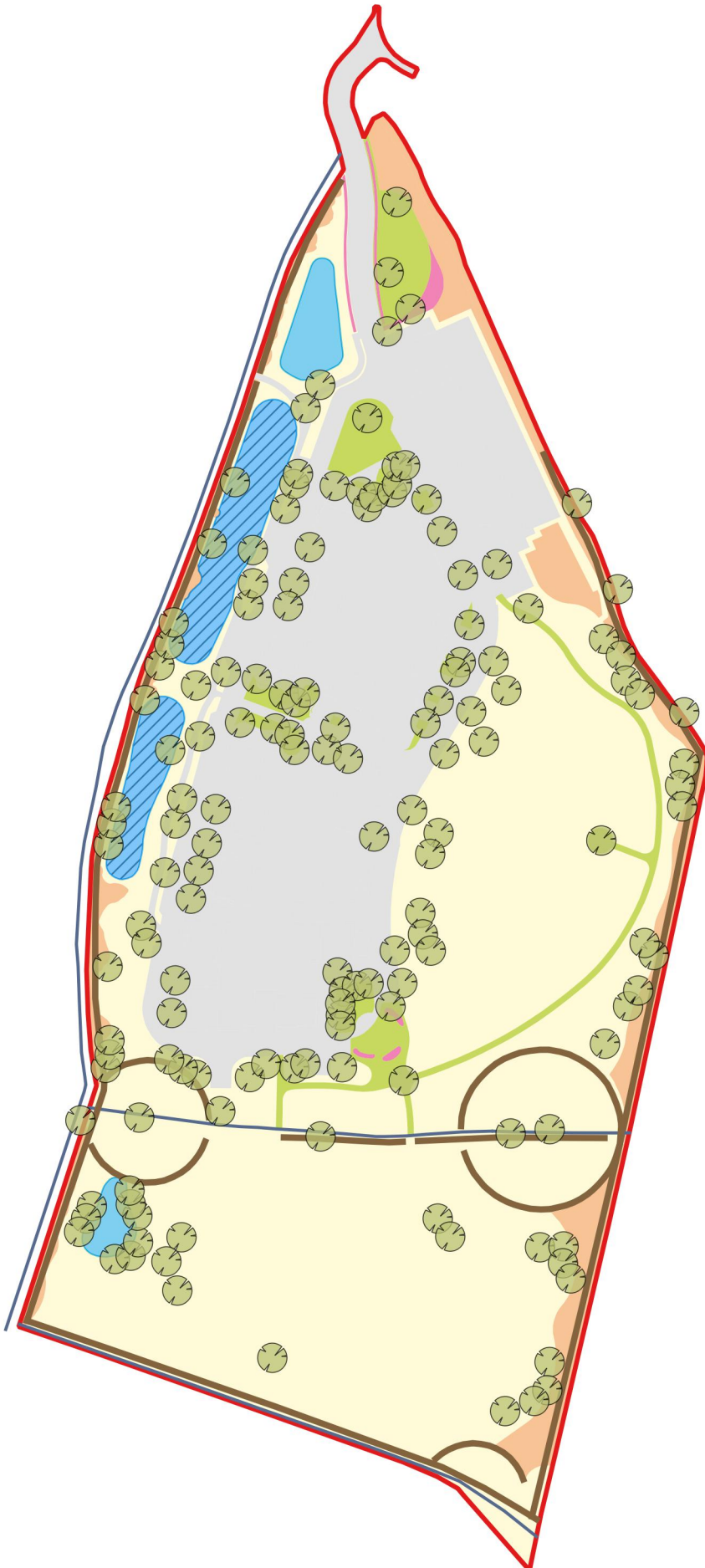
QC



Plan 5796/LEMP2:

Habitat Management Areas

P:\Project\Aspect Ecology Projects\ECO 5796\1005796\Graphics\GIS\5796 LEMP1 2.qgz



- Key:
- Site Boundary
 - Wildflower Grassland
 - Flowering Lawn
 - Mixed scrub
 - Ornamental Planting
 - Ponds
 - Sustainable Urban Drainage Feature
 - Hedgerow
 - Ditch
 - Tree



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Mile Cross, Reading
Habitat Management Areas

PROJECT

TITLE

DRAWING
NO.

REV

DATE

QC



5796/LEMP2

A/LS

October 2024

AoN/BG

Appendix 5796/1:

Landscape Planting Plans (David Jarvis Associates Ltd)



- APPLICATION BOUNDARY
- AMENITY GRASS: PROPOSED
Emorsgate, Flowering Lawn Mixture EL1
- MEADOWS: THESE COMPRISE AREAS OF
EXISTING AND PROPOSED
GRASS/MEADOW:

The intention is to provide a species rich
grassland mosaic.

Existing areas of grass / meadow are to
be enhanced by overseeding with
informal swatches of
1. Emorsgate, Tussock Wildflowers
EM10F
2. Emorsgate, Special General
Purpose Wildflowers EM3F

Proposed areas of meadow are first to
be seeded with;
3. Emorsgate, Flowering Lawn
Mixture EL1
and then overseeded in line with the
enhancement of existing areas / with
items 1 and 2 above.

PROPOSED GRASS: PRIVATE
- PROPOSED PLANTED BEDS
See planting schedule on DR-5007 for
details
- PROPOSED NATIVE SCRUB MIX
See planting schedule on DR-5007 for
details
- PROPOSED LOW DENSITY SCRUB MIX
AND UNDER-STORY SEED MIX:
To be seeded with:
1. Emorsgate, Woodland Mixture
EW1
See planting schedule on DR-5007 for
details scrub planting species
- PROPOSED SPECIMEN TREES
See planting schedule on DR-5007 for
details
- PROPOSED FORMAL/NATIVE HEDGE
See planting schedule on DR-5007 for
details.
- PROPOSED PERMANENT WATER
- SUDS BASIN WET GRASSLAND MIX
Emorsgate, Meadow Mixture for
Wetlands EM6
- PROPOSED BULBS
- PROPOSED WETLAND / MARGINAL
ENHANCEMENT MIX
- EXISTING VEGETATION
To be retained
- GRASSCRETE

Notes

Related Drawings: DIA Drawing based on
- DWG Architects Kingfisher Base Site Layout 03A Information Issue 18-06-2024 -
Standard
- FLAC-02 1050 Topo - VTB - FS
-

Issue: Drawn by David Jarvis Associates Limited (CROWN COPYRIGHT). ALL RIGHTS
RESERVED 2024 LICENCE NUMBER 01000333. This drawing is for Planning purposes
only - Do not use this drawing for Construction. The information contained in the
drawing should be used as a guide to the final forms and finishes of the landscape
scheme. Any revisions to be approved by the Client and Local Authority.

Scaling: This drawing can be scaled for planning purposes but should not be used for
any other purpose.

Setting out: refer to Engineers for information regarding setting out. In the event of
discrepancy refer to Engineers in the first instance.

Survey: Original survey provided by the Client.

Servicos: Where possible these are identified on the drawings but, for the avoidance
of doubt all service/utility locations should be considered indicative until identified on
site. To ensure those services / utilities shown are current refer to the original survey
provider or utilities designer or Client for confirmation and further information
regarding easements. In the event of new services being installed refer to the
appointed Engineer. It is recommended that hazard warning tape (danger electric
cable/danger services) to be installed over all service routes (to remain on site to
current BS guidelines (BS7671)).

Lighting: Refer to lighting engineers drawings.

Planting: Plant species are selected and located in line with consideration of the site
conditions, NERC guidelines and discussions with the Local Authority and design
team. All plants and planting procedure to conform to the David Jarvis Associates
Limited Landscape Specification that will accompany the Construction Issue drawings.
No species or plant location is to be varied without prior consent of the Landscape
Architect.

Biosecurity: All plant stock to be sourced from a supplier certified to be pest and
disease free and in accordance with Plant Passport / Animal and Plant Health Agency
(APHA) and current DEFRA requirements. Supplier information / certification to be
retained for a period of not less than 12 years and must be made available upon
request.

Foundations: Developers / Contractors to ensure that all foundations (buildings and
external walls) are designed and constructed so as to take into account, at the time
of maturity, any existing or proposed trees, hedgerows or other vegetation on the
application site or existing vegetation on land adjoining the site at the time of
construction and any trees killed or hedgerows removed on or adjacent to the site
during the previous 15 years. For this purpose the developer / contractors will submit
all relevant details to the authority dealing with the Building Regulations Certificate.

Design Levels: Refer to Engineers where design levels are not shown.

CS&E: Drawings to be read in conjunction with Designers risk assessment. Potential
risks above that of those associated with the general construction typical to the
drawing are identified below;

Drawing Revision				
Rev.	Date	Description	Drawn	Checked
P4	15/07/2024	Two tree canopy graphics missing by existing pond re-baded.	AC	AC
P3	12/07/2024	Minor updates to reflect ecology comments	AB / AC	AC
P2	09/07/2024	Updates to suit client comments received at meeting 03.07.2024 1pm.	AB / AC	AC
P1	27/06/2024	First draft issued to client team.	GB / AB / AC / JS / ES	AC

Status

PLANNING

DAVID JARVIS ASSOCIATES

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Client

SOVEREIGN NETWORK GROUP

Project

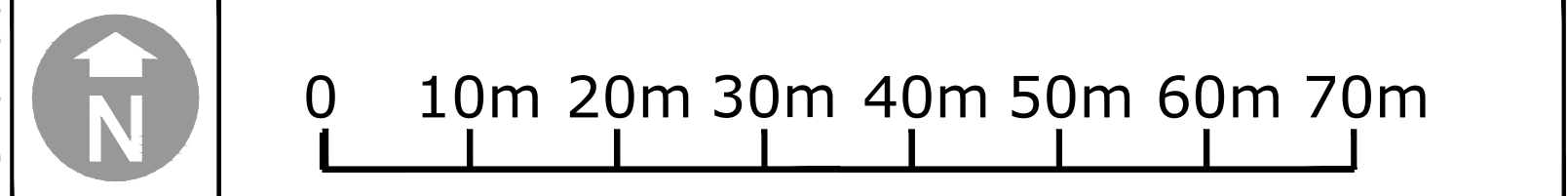
KINGFISHER GROVE, THREE MILE CROSS

Drawing Title

LANDSCAPE MASTERPLAN

Scale	Sheet Size	Date Plotted	
1:500	A0	15/07/2024	
Client Ref.	Drawing Ref.	Drawing No.	Version
-	3249-5-2-	DR-5000	P4

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Appendix 5796/2:

Management Activity Schedules

Initial Management				
	Action	Responsibility	Frequency / Timing	Notes
1.	Erection and maintenance of protective fencing (in accordance with British Standard BS5847:2012). 5m buffer to be maintained around retained trees and hedgerows where the consented masterplan allows.	Sovereign Network Group / Appointed Landscape Contractor	During construction phase.	-
2.	Planting up of gaps with native woody species to strengthen and enhance hedgerow structure.	Sovereign Network Group / Appointed Landscape Contractor	As required to ensure dense continuous corridors.	-
Ongoing Management				
3.	For recently managed hedgerows, trimming to 2m height on rotation, leaving approximately one third of the hedgerow un-trimmed during individual cuts to maintain opportunities for wildlife at all times.	Sovereign Network Group / Appointed Landscape Contractor	Sections of hedgerows will be trimmed on a 2-3 years rotation. Undertaken from September to the end of February.	Only recent growth will be trimmed, with ideally a short section of the previous year's growth left to avoid damaging the same wood each year.
4.	Taller hedgerows will be managed from the side to prevent encroachment into adjacent habitats.	Sovereign Network Group / Appointed Landscape Contractor	Sections of hedgerows will be trimmed on a 2-3 years rotation. Undertaken from September to the end of February.	-
5.	Any gaps that may form due to overgrowth etc. will be replanted with additional shrub planting of similar species to those already present.	Sovereign Network Group / Appointed Landscape Contractor	As required.	-
6.	Retained trees, including those within hedgerows and tree-lines, will be subject to thinning/pruning/coppicing on rotation to their enhance structure and reduce shading.	Sovereign Network Group / Appointed Landscape Contractor	Undertaken from September to the end of February.	Arisings used to re-stock log piles or removed from site.
7.	Use of arisings from works to create further habitat piles, with excess material disposed of as appropriate through chipping or removal from the site.	Sovereign Network Group / Appointed Landscape Contractor	As required.	-

Initial Works/Aftercare				
	Action	Responsibility	Frequency/Timing	Notes
1.	Seed areas with specified native wildflower mix.	Sovereign Network Group / Appointed Landscape Contractor	Carried out September to November when ground is not dry, waterlogged or frozen.	Seed should be surface sown by machine or broadcast by hand at the rate specified by the supplier. Following sowing, should be firmed with a roller or by treading.
2.	Carry out regular cutting of newly seeded grassland areas to ensure establishment of a healthy sward.	Sovereign Network Group / Appointed Landscape Contractor	Regular mowing between spring and autumn.	Sward should be maintained at approximately 40-60mm for wildflower grassland and 150mm for seasonally wet grassland for the first growing season.
3.	Reseed or overseed any substantial failed areas of grassland using specified native wildflower mix.	Sovereign Network Group / Appointed Landscape Contractor	As required for first year following sowing.	-
4.	Monitor potential presence of invasive weeds and control if required using spot treatment or cutting.	Sovereign Network Group / Appointed Landscape Contractor	Monitor throughout year, control as required.	Subject to monitoring visits. Only control if detrimental to general sward as weed species may be of benefit to invertebrates.
Ongoing Management Activities				
5.	Maintain by cutting / strimming to a height of no less than 150mm with varied cutting regime.	Sovereign Network Group / Appointed Landscape Contractor	Cutting back to a height of no less than 150mm annually, between October and February.	Remove arisings from site, compost on-site and / or create a small number of grass habitat piles (1m in diameter and 0.5m in height) within boundary areas.
6.	Reduce areas of encroaching scrub as required (including in line with flood drainage requirements).	Sovereign Network Group / Appointed Landscape Contractor	As required, carried out in September/October.	Arisings used to create habitat piles or removed from site.
7.	Use of herbicides, fertilisers and pesticides to be avoided where possible, aside from spot treatment of weeds.	Sovereign Network Group / Appointed Landscape Contractor	Monitor throughout year, control as required.	Subject to monitoring visits. Only control if detrimental to general sward as weed species may be of benefit to invertebrates.

Ongoing Management Activities				
1.	Monitor presence of invasive / ruderal weeds and control if required.	Appointed Landscape Maintenance Contractor / Sovereign Network Group	Monitor throughout year, control as required.	Subject to monitoring visits.
2.	Monitor river for physical obstructions such as rocks, fallen branches and waste and remove as necessary.	Appointed Landscape Maintenance Contractor / Sovereign Network Group	Avoiding fish spawning season (1st March- 31st June inclusive). Late September is the optimal time in preparation for increased winter flows.	Green waste to be left a safe distance from the watercourse temporarily to allow any organisms to re-enter the watercourse.
3.	Control of vegetation (grass, weeds, reeds, shrubs and trees) through infrequent mowing/trimming and trimming as required, dependent on growth to maintain open channel.	Appointed Landscape Maintenance Contractor / Sovereign Network Group	As required, but any management of shrubs/trees to occur outside the nesting bird season. Grass cutting/trimming in line with wildflower grassland areas.	-
4.	De-silting of watercourse	Appointed Landscape Maintenance Contractor / Sovereign Network Group	Approximately once per year, ideally in late September and avoiding the fish spawning season.	Silt will be temporarily deposited on top of the watercourse banks to allow organisms to move back into the watercourse.

Initial Works/Aftercare				
	Action	Responsibility	Frequency / Timing	Notes
1.	Install tree guards or shelters to protect new planting from damage	Sovereign Network Group / Appointed Landscape Contractor	As required	-
2.	Undertake weed control within 1m diameter around tree bases using mulch applications, mulch mats, hand-weeding or herbicide application.	Sovereign Network Group / Appointed Landscape Contractor	For 3 years following planting.	Mulch application (if used) to be applied in early summer (April).
3.	Monitor new tree growth.	Sovereign Network Group / Appointed Landscape Contractor	Every 6 months during the first year and annually thereafter.	-
4.	Monitor condition of tree guards / shelters and replace or repair as required.	Sovereign Network Group / Appointed Landscape Contractor	As required	-
5.	Undertake watering of new areas of new planting as required during dry periods.	Sovereign Network Group / Appointed Landscape Contractor	As required	-
6.	Replace any failed planting.	Sovereign Network Group / Appointed Landscape Contractor	As required. Planting best undertaken November-March.	-
Ongoing Management Activities				
7.	Remove tree guards once trees are established. Provide stakes if required to maintain stability.	Sovereign Network Group / Appointed Landscape Contractor	As required once trees are established.	-
8.	Undertake coppicing/trimming of trees/scrub on an as needed basis.	Sovereign Network Group / Appointed Landscape Contractor	As required (outside the nesting bird season).	Arisings used to create/re-stock log piles where appropriate. Where any such work is not possible outside of the nesting bird season it may need to be preceded by a nesting bird survey by a suitably qualified ecologist.
9.	Monitor presence of invasive weeds and control if required using spot treatment of herbicides or cutting.	Sovereign Network Group / Appointed Landscape Contractor	Monitor throughout year, control as required.	Only control if detrimental to tree / shrub growth or ground flora as weed species may be of benefit to invertebrates.
10.	Use of herbicides and fertilisers to be avoided except to promote tree and shrub establishment.	Sovereign Network Group / Appointed Landscape Contractor	-	-

Initial Works/Aftercare				
	Action	Responsibility	Frequency/Timing	Notes
1.	Creation of new native hedgerows using native species as appropriate.	Appointed installing contractor	As required to ensure dense continuous corridors.	
2.	Failed vegetation to be replaced and suitable irrigation provided where necessary.	Appointed landscape contractor	As required for first year following planting / initial contract period, whichever longer.	To ensure successful initial establishment of woody vegetation within the new boundary corridors and hedgerows.
Ongoing Management Activities				
3.	Hedgerows to be trimmed as appropriate to maintain dense, continuous vegetation whilst allowing growth and screening function.	Appointed landscape maintenance contractor	Any trimming to take place during November to February, no more than annually (Ideally less frequently) with only a proportion cut in any year to ensure uncut areas remain available for wildlife use.	Arisings used to create habitat piles or removed from site.
4.	Monitor health of hedgerow/boundary corridor and any developing gaps to be restocked with native species similar to those already present.	Appointed landscape maintenance contractor	As required to maintain continuous corridors.	
5.	Use of herbicides and fertilisers to be avoided.	-	-	-

Initial Management				
	Action	Responsibility	Frequency/Timing	Notes
1.	Monitor establishment; re-turf/seed any substantial failed areas of grassland where appropriate.	Sovereign Network Group / Appointed Landscape Contractor	As required for first year following sowing.	-
2.	Watering.	Sovereign Network Group / Appointed Landscape Contractor	During first two weeks. Following this, as required during dry spells.	-
Ongoing Management Activities				
3.	Regular mowing of amenity grassland during the growing season to 25-50mm height.	Sovereign Network Group / Appointed Landscape Contractor	As required or fortnightly during growing season.	Remove arisings from site, compost on-site or create habitat piles.
4.	Use of herbicides, fertilisers and pesticides to be avoided where possible, aside from spot treatment of weeds.	Sovereign Network Group / Appointed Landscape Contractor	All year.	Only use to spot treat unwanted weeds.

Initial Management				
	Action	Responsibility	Frequency/Timing	Notes
1.	Monitor establishment; replace failed planting where appropriate.	Sovereign Network Group / Appointed Landscape Contractor	As required for first year following initial planting.	-
2.	Watering.	Sovereign Network Group / Appointed Landscape Contractor	As required to facilitate successful establishment.	-
Ongoing Management Activities				
3.	Selective thinning and pruning as required to maintain dense vegetation and appropriate landscape/visual amenity.	Sovereign Network Group / Appointed Landscape Contractor	As appropriate, cutting to take place during October to February (outside of the bird nesting season).	To ensure successful development and maintenance of healthy vegetation, including structure and cover. Arisings to be placed within appropriate areas at the site to create/add to distinct habitat piles/removed from site where appropriate.
4.	Use of herbicides, fertilisers and pesticides to be avoided where possible, aside from spot treatment of weeds.	Sovereign Network Group / Appointed Landscape Contractor	All year.	Only use to spot treat unwanted weeds.

Initial Works/Aftercare				
	Action	Responsibility	Frequency/Timing	Notes
1.	Initial creation and seeding of wetland grassland area with appropriate wildflower mixture(s), reflecting likely soil/hydrology conditions. Where open water areas can be created, native marginal planting to be included.	Appointed landscape contractor	-	-
2.	Install/maintain appropriate fencing/barriers to prevent damage during initial establishment.	Appointed landscape contractor	As appropriate following creation until suitable establishment of vegetation.	-
3.	Monitor presence of invasive/ruderal weeds and control if required.	Appointed landscape contractor	Monitor throughout year, control as required.	Only control native species if detrimental to general development of vegetation as weed species may be of benefit to invertebrates and other fauna. Remove non-native invasives in line with BNG condition criteria.
Ongoing Management Activities				
4.	Dredging / de-silting only to take place where necessary to facilitate functional drainage requirements and/or maintain good quality, clear standing water. (In line with relevant BNG criteria)	Appointed landscape maintenance contractor	As required during November-early February, or at times when dry.	All arisings to be deposited on the bankside for at least 24 hours to enable trapped aquatic fauna to return to the habitats prior to removal from the site.
5.	Aquatic and marginal vegetation to be cut back / dredged out of the permanently wet areas where necessary, whilst aiming to maintain coverage of at least 50% in line with BNG condition criteria.	Appointed landscape maintenance contractor	As required during November-early February, or at times when dry.	To maintain open water habitats where possible and prevent these from becoming choked / overgrown with vegetation. All arisings to be deposited on the bankside for at least 24 hours to enable trapped aquatic fauna to return to the water prior to removal from the site.
6.	Lower banks/basin to be managed with minimal cuts (no more than once per year, except where required in order to facilitate functional drainage requirements) to prevent development of shrubs or woody vegetation.	Appointed landscape maintenance contractor	Unless otherwise required due to drainage requirements, cut no more than annually outside of the flowering/seeding period (late-July/Sept).	To allow continued drainage functionality, whilst providing habitat structure and varied vegetation for the benefit of faunal species. Arisings to be removed.
7.	Upper banks to be managed in line with surrounding grassland (see above)	Appointed landscape maintenance contractor	See above.	10m riparian zone is maintained in line with BNG condition criteria.
8.	Removal of any debris or other deposits as required in order to facilitate functional drainage requirements.	Appointed landscape maintenance contractor	As required, ideally limited to winter periods (November-early February).	To maintain the functionality of the detention basin as a drainage system whilst also ensuring (where possible) wildflower grassland vegetation is maintained for the benefit of wildlife.
9.	Use of herbicides and fertilisers to be avoided.	-	At all times	In order to benefit species diversity and habitat value, whilst also minimising/ preventing leaching of chemicals into surface water systems.

New Faunal Features

Appendix: 5796/LEMP2.9

Ongoing Management				
	Action	Responsibility	Frequency/Timing	Notes
1.	Monitor condition of bat and bird boxes / tiles and re-fix, replace or repair if damaged.	Sovereign Network Group / Appointed Landscape Contractor	Monitor throughout year, repair or replace as required.	Adjustments to bat boxes / tiles (e.g. repositioning) should be undertaken in spring or autumn months. Any adjustments to bird boxes (e.g. repositioning) should be undertaken in the winter months (i.e. outside 1st March to 31st August inclusive).
2.	Restock log piles.	Sovereign Network Group / Appointed Landscape Contractor	As required.	Use arisings generated from ongoing management activities works.

General Management Activities

Appendix: 5796/LEMP2.10

Ongoing Management				
	Action	Responsibility	Frequency/Timing	Notes
1.	Regular litter inspections and remove and suitably dispose of any litter.	Appointed Landscape Maintenance Contractor	As required – likely at least monthly.	-
2.	Use of herbicides and fertilisers to be avoided across all habitats where possible.	-	-	-
3.	Regular monitoring (at least annually) of habitat/vegetation conditions and review of management actions/progress (including these sheets) in order to inform future management.	Appointed landscape maintenance contractor	At least annually – date to be confirmed.	All areas to be inspected/monitored and clear logs/records of actions and associated conditions kept to inform updates/amendments to the management plan.

Monitoring

Appendix: 5796/LEMP2.11

Ongoing Monitoring Activities				
	Action	Responsibility	Frequency/Timing	Notes
1.	Regular monitoring (at least annually) of habitat/vegetation conditions and review of management actions/progress (including these sheets) in order to inform future management.	Appointed landscape maintenance contractor	At least annually – date to be confirmed.	All areas to be inspected/monitored and clear logs/records of actions and associated conditions kept to inform updates/amendments to the management plan.
2.	ELMP to be reviewed every 5 years for 30 years	Sovereign Network Group / Appointed Ecologist	Every 5 years for 30 years.	To include a botanical survey of the created habitats to ensure the aims of the management plan are being achieved.

Appendix 5796/3:

Work Schedule

Works Schedule (Annual Implementation Programme of Management Works)

Habitat / feature	Activity	Month												Notes
		J	F	M	A	M	J	J	A	S	O	N	D	
<i>Wildflower grassland</i>	Other neutral grassland areas within the development to be maintained as meadow grassland with tall sward where possible for the benefit of wildlife.													Wildflower grassland ideally to be cut no more than once per year (certainly no more than 2-3 times a year). Cuts timed to fall outside of the main flowering season, to approximately 10-15cm. Arisings removed and may be placed within discrete piles at the margins to provide wildlife habitat.
<i>Native Hedgerows</i>	Hedgerows to be trimmed only where necessary to encourage dense growth and maintain continuous corridors.													Trimming to be undertaken outside of the bird nesting season.
<i>Trees, scrub and woody vegetation.</i>	Health and safety works													Based on appropriate aboricultural assessments. Carried out as and when required outside of the bird nesting season.
	Trimming of vegetation to prevent encroachment into grassland sward area as required													Carried out as and when required outside of the bird nesting season.
<i>Pond</i>	Cutting bankside vegetation													Maintained as wildflower grassland when not inundated – cut ideally no more than once per year outside of the main flowering season, to a height of approximately 10cm. Cutting on a rotational basis over no more than 50% in any one year, maintaining open surroundings.
	Clearance of excessive weed growth / dredging of silted areas.													Only as required to ensure open water areas remain where possible, remove non-natives and reduce coverage of Duckweed and filamentous algae. Any removed material should be left on the bankside for at least 24 hours and at most only part of any open water area dredged/cleared in any one year.
<i>Ditch and SUDs Feature</i>	Monitor presence of invasive / ruderal weeds and control if required. No pesticides or fertilisers to be used adjacent to watercourse/ditch.													Only as required to ensure open water areas remain where possible, remove non-natives and reduce coverage of Duckweed and filamentous algae.
	Remove physical obstructions such as rocks, fallen branches and waste. De-silt watercourse/ditch.													Any removed material should be left on the bankside for at least 24 hours and at most only part of any open water area dredged/cleared in any one year.
	Control of vegetation (grass, weeds, reeds, shrubs and trees) through mowing and trimming.													
<i>Ornamental Planting</i>	Ornamental planting to be clipped/ managed as required.													Management as required to ensure appropriate landscape value and character.
<i>Flowering Lawn</i>	Modified/amenity grassland to be maintained at a short-sward length to direct use and maintain neat landscape character.													Cut grass to a height of less than 5cm. Mowing likely to be required 2-3 times a month during the main growing season. Although the focus of these areas is for amenity purposes, management should be based on ecological principles.
<i>General site maintenance</i>	Litter picking and repairing of site infrastructure / faunal enhancements													Informed by regular checks, as and when required. Combined with other management tasks where possible.

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