

Ecological Management Plan

Fewcott Road, Fritwell

November 2022

Ecology | Green Space | Community | GIS
Unit 1, Brassmill Lane Enterprise Centre | Bath | BA1 3JN
01225444114 | info@ethosep.co.uk
www.ethosep.co.uk



Report Produced for



Written by: Martin Smith, Senior Ecologist

Issue: Final V3

Date: November 2022

EXECUTIVE SUMMARY

- This Ecological Management Plan (EMP) has been produced by Ethos Environmental Planning (Ethos) to discharge Condition 18 of planning permission 19/00616/OUT;
- The site is located at Fewcott Road, Fritwell, Oxfordshire, OX27 7QP, central grid reference: SP 52959 29076
- This plan is informed by the Detailed landscape Design Overview (20-4772) produced by Lockhart Garratt (28/02/22)
- This plan includes the creation of grassland, mixed scrub, hedgerows, and the enhancement of neutral grassland
- The LEMP also includes a plan which details the ecological provisions
- A five-year work schedule capable of being rolled out over a 30-year period is set out.
- Remedial measures potentially required alongside responsibilities for implementing the LEMP
- If all recommendations within this EMP are followed, the created and retained/enhanced habitats will provide an improvement for wildlife within the area.

CONTENTS

	Page(s)
1.0 INTRODUCTION	3
2.0 HABITATS SPECIFICATIONS	6
3.0 ECOLOGICAL ENHANCEMENTS	11
4.0 ROLES AND RESPONSIBILITIES	15
5.0 MONITORING AND REMEDIAL MEASURES	16
6.0 REFERENCES	19

1.0 INTRODUCTION

This Ecological Management Plan (EMP) has been produced by Ethos Environmental Planning (Ethos) for the development Goose Farm, Fritwell, hereafter referred to as the 'site'. This EMP is informed by the proposed Site Plan provided within figure 2 of this report.

This report was informed by the Biodiversity Net Gain Results Report by Ethos, 2022.

1.0.1 Proposals

The planning application includes the erection of up to 28 dwellings and associated access into the site.

1.0.2 Condition

This report was produced regarding the pre-commencement planning conditions (planning reference: 19/00616/OUT) provided by Cherwell District, this includes condition 18 which required a Landscape and Ecological Management Plan (LEMP) as detailed below.

Prior to the commencement of the development hereby approved, a Landscape and Ecology Management Plan (LEMP) shall be submitted to and approved in writing by the Local Planning Authority. This shall include details of all planting, soft landscaping and biodiversity features and management and maintenance ongoing (including funding details and timetable). Thereafter, the development shall not be carried out other than in accordance with the approved LEMP.

Reason: To comply with Policies SLE 4, ESD 1, ESD 3 and ESD 5 of the Cherwell Local Plan 2011-2031 Part 1 and to maximise opportunities for sustainable transport modes in accordance with paragraph 110(e) of the National Planning Policy Framework. Lighting strategy

1.0.3 OBJECTIVES of the LEMP

The objectives of the EMP are as follows:

- To protect and enhance biodiversity and landscape elements of the site, for the first five years following completion of development, capable of being rolled out over a 30-year period.
- To provide prescriptions for ongoing management to meet the stated objectives and shown as applicable on plans and drawings for individual areas.
- To fulfil the legal requirements in relation to the protection and enhancement of the ecological features of the site.
- To provide prescriptions for management actions including a 30-year timetable of works.
- Providing a list of persons responsible for undertaking specific duties.
- Ensure that retained and enhanced features are protected within the construction phase and maintained on site for their biodiversity value

1.2 Landscape Plan

Figure 2 Proposed site plan ref:20-4772.



2.0 HABITATS SPECIFICATIONS

2.1 Retain/enhanced habitats

Retained habitats will include the retention of hedgerow 1 (H1) and the retention of grassland within the west of the site and an area of grassland within the horse paddock to the south of the site. The enhancement of these habitats are provided below:

2.1.1 Native Species Rich Hedgerow (H1)

H1 will be retained on the eastern boundary of the site. This hedge will be fenced throughout the construction phase to avoid impact the roots. A 2m buffer will be required with Herras fencing along the hedgerow through out the entire construction process. management for the hedgerow is provided below.

- Once the development is completed the hedgerow will be cut on rotation once every three years on alternate sides (left/top/right) to ensure high fruit production
- The hedgerow will be cut between January – February to avoid impacts on wildlife and to ensure high fruit production.
- Monitoring will inform the management regarding the rejuvenation of the hedgerow; this can include options such as hedge laying or coppicing.

2.1.2 Wildflower Meadow (Neutral Grassland)

The grassland within the paddock will be managed as a wildflower meadow. This section will be fenced off to avoid impacts from machinery of potential storage of material through the construction phase.

Western Grassland

The western grassland will be enhanced to neutral grassland in a moderate ecological condition as set out below:

- The existing grassland will be scarified to provide a seed bed with 50% grassland to 50% exposed soil
- A general-purpose meadow mixture such as Emorsgate Seeds EM1 will be sown (Spring or autumn)
- The grassland will be mown regularly during the first year of establishment
- Once established, the grassland will be cut after the main flowering period (July - August) and then grazed or mown short through the autumn and early spring
- Any arisings will be removed and composted within a designated area on site.

Horse Paddock (South)

The retained grassland to the will be enhanced to a good ecological condition as provided below:

- The existing grassland will be scarified to provide a seed bed with 50% grassland to 50% exposed soil;
- A wild pollen and nectar mix ESF2 will be sown (spring or autumn) as shown on the management plan;
- Top all plant growth at least three times within the first year to aid establishment;
- Each spring, if plant growth is more than 15cm in height, cut (and remove cuttings if dense) to achieve a plant height of between 5cm and 10cm tall
- Cut and remove arisings after the main flowering period August – September;
- Any arisings will be removed or composted within a designated area on site;
- Cut or graze up to 31 October aiming to leave a plant height of between 10cm and 20cm.
- Leave 10% of the area uncut or ungrazed to provide over-winter nesting and safe refuges for insects and other wildlife.

2.2 Created Habitats

2.2.1 Trees

Tree species, girth, height, and specification are provided within the Detailed landscape Design Overview with general guidance which includes ground preparation, planting operations, and aftercare provided within sheet 3.

- Tree planting will be undertaken in autumn, when the trees are dormant, and for enough time for the roots to take hold before the spring
- Trees will be staked, and stakes and ties will be adjusted annually
- Trees will be mulched when planted and on an annual basis
- All trees will be watered regularly within the first year to aide establishment

2.2.2 Native hedgerows

There will be three different hedgerows on site. This will include H2) native species rich hedgerow, H3) Native hedgerow, and H4) an ornamental hedgerow. H2 and H3 will be planted with species provided within the Plant Schedule and Overview (20-4772) whereas H4 will be a single species beech (*Fagus sylvatica*) hedgerow. The creation and management of these hedgerows are provided below.

H2, H3, and H4 Creation

- Prior to maintenance, the hedge line shall be cleared of litter and debris.
- The hedgerows will be planted when the trees are dormant between November and March.

- Vegetation at the ground level will be cleared before the hedgerow is planted.
- The hedgerow will be planted with bare root stock and will include species of local provenance.
- The hedgerow will be planted in zig zag lines at two-foot intervals.
- Tree guards will be used where necessary.
- Proposed mixed native hedge planting to be planted in a double staggered row 300mm apart and at 500mm centres in each row.
- Species, number, and percentage cover are provided within the Plant Schedule and Overview (20-4772). Species will be mixed throughout the edge to increase the diversity of the hedgerow
- The Emorsgate EH1 hedgerow mix will be sown within 1m of each side of the hedge one the whips are planted (as per planting plan specification).

H2 Management

- All gaps within the hedgerows will be planted with whips of native woody species such as hawthorn, blackthorn, field maple, privet, and hazel;
- The hedgerows will be maintained with high basal density – this will be achieved by allowing bramble and other scrub species to grow at the base of the hedgerows. ‘Neat’ hedgerows will be avoided. This will provide foraging and nesting habitat for birds, hedgehogs, and invertebrates;
- Infrequent cutting of hedgerows to allow fruit and nut production which will benefit a wide range of faunal species. Cutting will be undertaken on a three-year rotation; and,
- The hedgerow will be cut between January – February to avoid impacts on wildlife and to ensure high fruit production.

H3 and H4 Management

H3 and H4 will be managed to be approximately 1m in height and 1m in width. This will include regular cutting to maintain its structure. Cutting will be undertaken in the winter (January – Feb) to ensure fruit production and the base of the hedgerow will be mulched on a regular basis.

2.2.3 Scrub Planting (mixed Scrub)

Scrub planting is being incorporated into the design of the development. The scrub will be of mixed woody species and will be managed on rotational management to maintain a well-developed edge and to ensure that it provides suitable habitat for wildlife such as insects, birds, and bats.

- Species, their percentage cover, and specifications are provided within the plant schedule and Overview.
- The scrub will be planted as saplings with compostable tree guards, and stakes in place
- Dead stock will be removed and gapped up to aid establishment
- The saplings will be planted at 2-foot intervals in a zig zag formation

- The scrub will be planted so that the edge of the scrub (facing the development) is curved to increase the amount of edge habitat

Management

- Once established the scrub planting will be cut with a hedge strimmer on a biennial basis
- Sections will be coppiced on a 12-year rotation to ensure that the scrub remains dense
- Bramble scrub will be encouraged, and the aim will be to have a buffer of bramble between the planted scrub and the grassland

2.2.4 Ornamental Shrub (introduced shrub)

There are multiple areas of ornamental shrub planting on site. The plants, their percentage cover, and specification is provided within the Plant Schedule and Overview whereas the creation/management of the shrub beds are provided within the Planting Specification (20-4772). It is recommended to water regularly to aid establishment, remove dead and diseased plants, and restock where necessary. The ornamental shrub sections will be managed to good horticultural standards by experienced contractors.

2.2.5 Meadow Grassland (Neutral Grassland)

Two sections of neutral grassland will be created on site. This includes a section on the eastern boundary which will form a SUDs area and a section on the northern boundary which will include wildflowers.

The section within the SUD's area to the east of the site will be sown with the Emorsgate EM8 seen mix and will be created and managed as set out below.

- Proposed swales to be seeded with EM8 Meadow Mixture for Wetlands as supplied by Emorsgate and sown at 4 grams per m², or similar
- Works must be undertaken sensitively to avoid impacts on amphibians potentially present. Existing vegetation within the area will be left in place as it may support amphibian eggs.
- The grassland will be cut regularly in the first year in dry conditions to aid establishment
- Spot treat injurious weeds such as docks or nettles
- The areas of grassland around the attenuation basin should be managed to maintain good variation in structure by cutting sections on a two to three-year basis on rotation
- Works must be undertaken between September and November to minimise the effects on wildlife such as amphibians or reptiles
- Any arisings should be removed or composted within a designated area on site.

The grassland area to the north and east of the site will be sown with the Emorsgate EM1 meadow mixture.

- The wildflower and grass species in this mix are perennial; they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season. This annual weed growth is easily controlled by repeated mowing.
- Mow newly sown flowering lawns regularly (every 7-10 days during growing season) throughout the first year of establishment. Cut to a height of 40-50mm, removing cuttings if dense. This will gradually develop a good sward structure, help maintain balance between faster growing grasses and slower developing wildflowers, and control annual weeds.
- Dig out any perennial weeds such as docks.
- Once established, the grassland will be cut up to three times a year; first cut) in the spring (Feb-March), second cut late summer (august- Sept), and third cut as aftermath cut in the autumn (October)
- Arisings will be removed and composted within a designated area on site.

Bulbs will be planted at least three time the depth of the bulb. Species and their percentage cover are provided within the planting schedule. Mowing will be ceased within April to allow the bulbs to flower

2.2.6 Amenity Grassland (Modified Grassland)

Creation

- Proposed grass areas to receive good quality amenity grass turves laid in line with good horticultural practices.
- Mow newly sown flowering lawns regularly (every 7-10 days during growing season) throughout the first year of establishment. Cut to a height of 40-50mm, removing cuttings if dense. This will gradually develop a good sward structure, help maintain balance between faster growing grasses and slower developing wildflowers, and control annual weeds.
- Dig out any perennial weeds such as docks.

Management

- Once established, the grassland should be mown regularly as a lawn but not too short (25-50mm).
- To permit flowering, mowing can be relaxed from late June. Cut again when the sward gets untidy (after 4-8 weeks). Mowing may be suspended earlier in the year to allow cowslips to flower.
- Any arisings must be removed and composted within a designated area on site.

2.3 Composting

A dedicated three bay compost bin will be installed within the site. The creation of the compost bins will ensure that vegetation does not have to be removed from the site reducing carbon emissions, will provide suitable habitat for a range of wildlife such as reptiles and invertebrates.

Details on composting and building the composting system was provided within the reference section of this report RHS, 2020.

2.4 Management Constraints

Management cannot be undertaken that would result in offences under protective legislation. As such, management would ensure conformity with the Wildlife and Countryside Act (WCA) 1981 (as amended), the Conservation of Habitats and Species Regulations 2010 and the Natural Environment and Rural Communities (NERC) Act 2006.

The following provides a list of the key faunal groups that have been identified at the site through ecological surveys undertaken to date, along with consideration for how management prescriptions for the habitats at the site should take account of the presence of these species:

- Birds – Maintain suitable foraging and nesting habitat for birds, namely the existing hedgerows and mature trees on site as well as the created attenuation basin and planted trees. Management of scrub and trees must be timed to avoid the bird nesting season (March-August inclusive).
- Bats – Maintain suitable commuting, foraging and roosting habitat for bats, namely the boundary features, scrub, and grassland sections. Where possible, enhance retained habitat features to benefit bats.
- Reptiles – Maintain habitat for reptile at the boundaries of the site, create a dedicated receptor site for reptiles and ensure that there is suitable ecological connectivity for the species to disperse on site and between the site and the wider environment.

3.0 ECOLOGICAL ENHANCEMENTS AND PROVISIONS


The development proposals provide scope to enhance the site's roosting value for bats and nesting value for birds through species provisions. The ecological provisions will include 15 integrated Istock Enclosed Bat Box 'C' (or similar), 12 integrated swift bricks, seven integrated bird boxes, five Schweglar 1B Bird Box and two bee bricks are included in the development. All permanent fencing around and through the site should not restrict hedgehog movement and incorporate at least one 13 cm x 13 cm hole at the base of the fences.




The ecological provisions within Table 1 will be incorporated into the development in the locations shown in Figure 3.





Figure 3 Ecological Provisions

Table 1 Ecological provisions

Provision	Number	Description	Installation
	15	<p>Ibstock Enclosed Bat Box 'C'</p> <p>The Enclosed Bat Box 'C' from Ibstock is designed for the pipistrelle bat. It is ideal for new builds as it can be integrated directly into the brickwork to produce a discrete but attractive home for bats.</p> <p>The inside of the box is designed to create several roosting zones which are ideal for crevice dwelling bats such as the pipistrelle. The bottom entrance means that no maintenance is required as droppings will simply fall out the bottom.</p> <p>This Ibstock Bat Box C is available in two sizes and</p>	<p>Installed at least 4m high on south, south-west or south-east aspect of the building.</p> <p>Ideally not positioned above windows, doors or outside seating areas.</p>

Provision	Number	Description	Installation
		<p>three colours. Choose from smooth red, smooth blue or smooth cream brick. The box has an attractive bat motive on the front and is both durable and fully frost resistant.</p>	
 <p>Type 24</p>	<p>7</p>	<p>Schwegler Type 24 Brick Nest Boxes. Features an upright box with removeable entrance hole at the top. With an entrance hole diameter of 32mm, this box is suitable for many small birds including great, blue, marsh, coal and crested tits, redstarts, nuthatch, tree and house sparrows.</p>	<p>The bird box must be sited at least five metres high avoiding a south or south-west facing wall. Ideally the nest box will face areas of vegetation.</p> <p>The box can be installed flush with the outside wall and can be rendered or covered so that only the entrance hole is visible.</p>
 <p>Schwegler 1B Bird Box - 26mm hole</p>	<p>5</p>	<p>This is a popular model designed to encourage Blue, Marsh, Coal and Crested Tits; it might also be used by Wrens. The smaller entrance hole excludes all other species including Great Tits.</p>	<p>To be installed on mature trees on site around other vegetation.</p>
 <p>Bee Block</p>	<p>2</p>	<p>Bee Blocks can be used either as an integrated part of a building or free standing.</p> <p>Solitary bees are non-aggressive and as such are suitable for gardens with pets and children.</p>	<p>The Bee Block must be positioned in a warm sunny spot, preferably on a south-facing wall, with no vegetation in front of the holes. Ideally they should be positioned at a height of at least 1 metre from the ground. It is highly recommended that bee-friendly plants are located nearby so</p>

Provision	Number	Description	Installation
			<p>that the bees using the bricks have food, otherwise it is unlikely that the bricks will be used. Lavender, honeysuckle and buddleia are all pollinator-friendly plants.</p>
 <p>PRO UK Rendered Build-In Swift Box</p>	<p>12</p>	<p>This build-in nest box is designed to be integrated into the cavity of a building, constructed from long-lasting WoodStone and built to match standard UK brick dimensions. This box is designed to be rendered over, so only the small raised entrance is visible.</p>	<p>Swift boxes must be sited at least five metres high on a non-south-facing wall, with a clear flight path from the entrance. Swifts are colony breeders, so it is recommended that four boxes are sited together in each location - just be sure to leave at least 40cm distance between entrance holes.</p>
	<p>As required</p>	<p>Creating a hole in a garden wall or fence will allow your local hedgehogs to pass through from garden to garden safely.</p> <p>A hole measuring 13cm by 13cm is the right size for a hedgehog to pass through but too small for most pets. Once you have made your hole in the fence or wall, you can fix the Eco Hedgehog Hole Plate to the fence, ensuring that the hole does not get blocked or stretched.</p>	<p>Any permanent fencing around or within the site. Ideally close to other fences or linear features.</p>

4.0 ROLES AND RESPONSIBILITIES

The Client will be responsible for establishing the habitats and protected species provision detailed within this LEMP, as detailed in the previous sections. Following habitat creation, the site will then be managed by a dedicated management company established by the Client, who will be responsible for implementing the annual work plan.

All work will be carried out by experienced and qualified operatives holding the necessary training certificates to undertake the prescribed works. All works shall be carried out in accordance with good horticultural practice, using materials, plant, and machinery appropriate to the task, undertaken in such a manner that avoids damage to the site and its surroundings. Any plant material that dies as a result of Contractors neglect will be replaced at their cost.

The Client will be responsible for monitoring the site, appointing appropriate professionals (ecology, arboriculture) and producing the five-year monitoring report.

Updates to the LEMP following the first five years of monitoring will be the responsibility of the Client.

5.0 MONITORING AND REMEDIAL MEASURES

The Client will be responsible for establishing the habitats on site which will then be managed by a dedicated management company. The key aim of monitoring is to assess the success of the management prescriptions against the management objectives. The Management Company will take responsibility for monitoring and will liaise with the Client to report on the successes and any changes proposed to management, this will comprise a 5-year review of management to be provided as a monitoring report and updates made to the LEMP if required.

If the results of post-creation monitoring highlighted the need for management changes, the LEMP would be amended accordingly. A formal review of the LEMP would take place after five years following the completion of GI creation. The revised LEMP would contain management prescriptions for a further five to ten years.

This section sets out how monitoring will be implemented. Table 1 provides a list of monitoring actions with appropriate methods and reporting.

Table 2 Monitoring Plan

Item/Ref	Baseline conditions	Target conditions	How it will be measured	How will information be communicated/ recorded	Timing of monitoring	Responsibility	Remedial actions
1) Assess grassland enhancement	Poor and moderate	Moderate and good	Condition assessment to assess if the grassland meets the aforementioned condition assessment criteria for moderate grasslands	In monitoring report	May - September	The Client to appoint ecologist	Change management regime, additional grassland sowing, more frequent scrub and perennial weeds management
2) Scrub planting	None currently present	Species present as identified on the Landscape Plan. Structural diversity, form and spatially correct Well-developed edge habitat	Photos and detailed notes to assess condition and change over time	In monitoring report	May-September	The Client to appoint ecologist	Change management regime, plant additional woody species, changes, rota
3) Hedgerow and tree boundaries	Mature trees and hedgerows with features suitable for birds and invertebrates Target conditions within BNG report	Retain the features in the trees suitable for species (holes, cracks etc) but ensuring they do not pose a risk to public using the site (falling branches etc). Target conditions for created hedgerows	Condition assessment for hedgerow Visual survey for retained trees, with pictures and details collected to assess change over time	In monitoring report	November - March	The Client to appoint arboriculturist	Look at ways of retaining or replacing features (i.e., through bird or bat boxes, retain dead wood feature) Changed to cutting regime Restocking if necessary

Table 3 Annual Management Plan

No	Action	Month											
		J	F	M	A	M	J	J	A	S	O	N	D
1	Meadow grassland planting												
2	Grassland management												
3	Hedgerow management												
4	shrub planting												
5	Scrub Management												
6	Grassland monitoring												
7	Remainder of habitats monitoring												

6.0 REFERENCES

Ethos Environmental Planning (2022) *Biodiversity Net gain Results Fewcott Road, Fritwell*. Bath

Emorsgate Seeds (2004 – 2020) *Mixtures*. [Online] Available from:
<https://wildseed.co.uk/mixtures>

Hedgelink (ND) *The Complete Hedge Good Management Guide*. [Online] Available from:
http://www.hedgelink.org.uk/cms/cms_content/files/30_complete_good_hedge_management_guide_leaflet.pdf

PTES (ND) *Top tips for managing hedgerows*. [Online] Available from:
<https://ptes.org/hedgerow/managing-hedgerows-top-tips/>

PTES (ND) *Hedgerow structure*. [Online] Available from: <https://ptes.org/wp-content/uploads/2019/01/Hedge-structure-photos-with-descriptions-A3-2.jpg>

RHS (2020) *Composting*. Available from: <https://www.rhs.org.uk/advice/profile?pid=4>

