

LAND AT SOUTHVIEW FARM

Landscape and Ecological Management Plan

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ABBREVIATIONS

BAP	Biodiversity Action Plan
CIEEM	Chartered Institute of Ecology and Environmental Management
EcIA	Ecological Impact Assessment
IEF	Important Ecological Features
LNR	Local Nature Reserve
LWS	Local Wildlife Site
MAGIC	Multi-Agency Geographic Information for the Countryside

1. INTRODUCTION

1.1. Engain has been instructed by Coulston Estates (‘hereafter referred to as the ‘client’) to prepare a Landscape Ecological Management Plan (LEMP) for the Land at Southview Farm (hereafter referred to as the ‘site’).

1.2. The proposed development comprises the demolition of existing redundant stone buildings, the conversion of the existing Southview Farm building, and the construction of new offices and a shop.

Site Description

1.3. The site is located at the south-eastern edge of Trowbridge, Wiltshire (Figure 1). The ordnance survey grid reference for the centre of the site is ST 85979 56814.

1.4. The site is 0.42 hectares (ha) in area and comprises the Grade II listed Southview Farmhouse building, a domestic garage, two redundant stone stables, unmanaged grassland, and a mix of bramble and scrub.

1.5. The site is bordered by Drynham Road to the west, suburban residential development and an associated public footpath to the north and west, the Cardiff-Portsmouth railway line to the east, and an arable field associated with Southview Farm to the south.

Figure 1, "Site Location"



Aims and Objectives

1.6. This LEMP has been written in accordance with BS 42020:2013 Section 11.11. To achieve this, the following points have been addressed within this report:

- Actions and responsibilities of relevant individuals prior to handover;
- The ecological value and condition of the site at handover and how this is expected to develop and change over time;
- Description and evaluation of features to be managed;
- Aims and objectives of management;
- Appropriate management options for achieving aims and objectives;
- Prescriptions for management actions;
- Preparation of a work schedule (including an annual work plan capable of being rolled forward over a 30-year period);

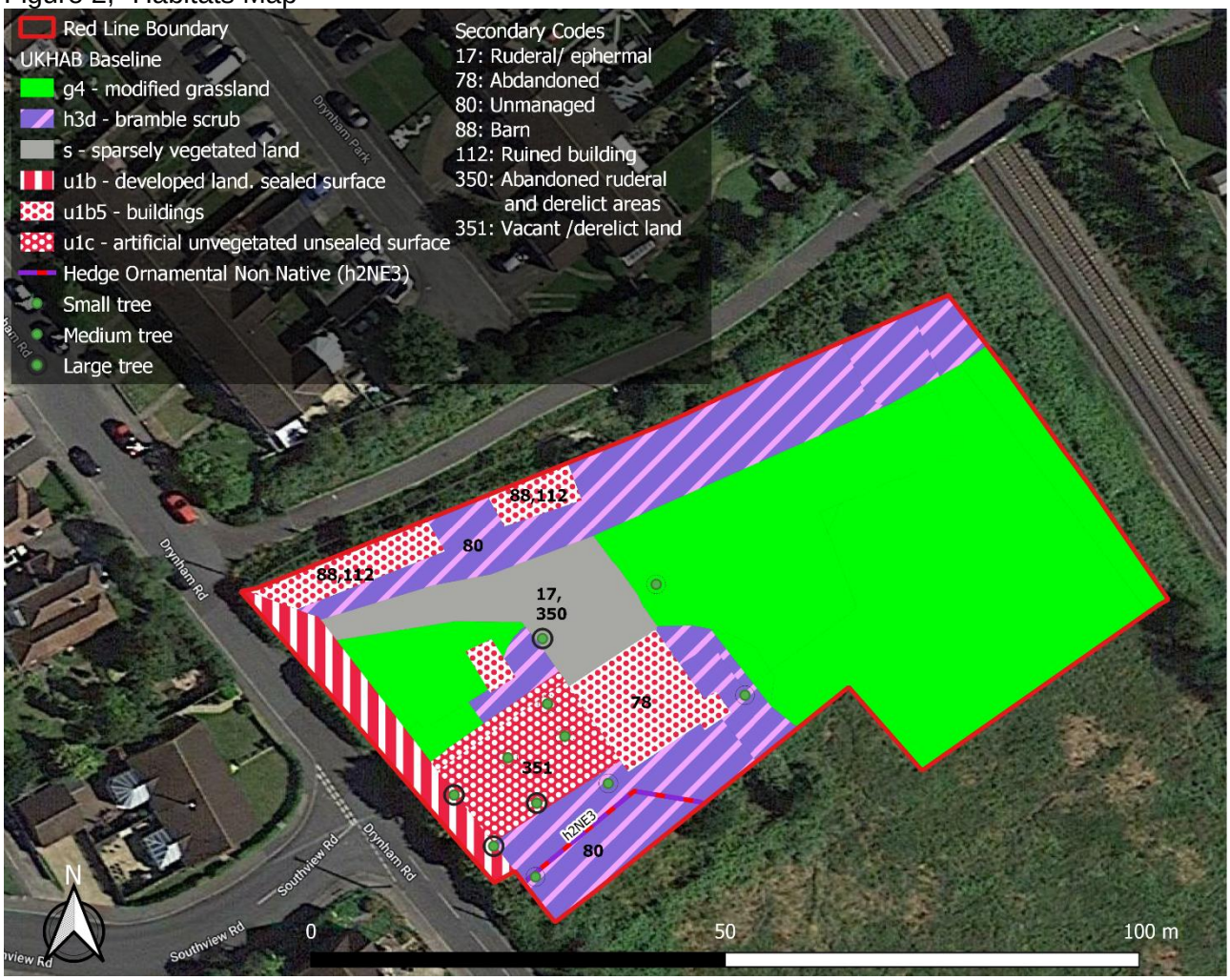
- Body or organisation personnel responsible for implementation of the plan;
- Monitoring and remedial measures; and
- Funding resources and mechanisms to ensure sustainable long-term delivery of the proposed management.

2. EXISITING CONDITION

Ecological Assessments to Date

2.1. The site is part of the outline planning application for the site known as 'Elm Grove', (planning reference: 19/11459/OUT) and was subject to extensive ecology surveys to support the application. Subsequently, to support the reserved matters application, update surveys have been undertaken at the site in 2022.

Figure 2, "Habitats Map"



2.2. The habitat survey undertaken at the site in 2023 found the site to comprise:

- Artificial, unsealed surface
- Bramble scrub;
- Buildings;

- Modified grassland;
- Ornamental hedgerow;
- Scattered trees; and
- Sparsely vegetated land (ephemeral).

2.3. Refer to **Figure 2** for the Habitats Map.

2.4. In summary, the habitat on site offers opportunities to the following species:

- Badgers (*Meles meles,* commuting and foraging);
- Bats (commuting);
- Bats (roosting);
- Breeding birds (common species);
- Dormice (nesting, foraging and commuting);
- Hedgehog (Erinaceus europaeus);
- Reptiles (common species); and
- Terrestrial invertebrates.

2.5. Furthermore, during survey undertaken it was found the, the off-site habitat which is located adjacent to the railway track supported commuting bats, acting as linking corridor between roosts and from roosts to foraging grounds relating to the Bradford and Avon Bats Special Area of Conservation (SAC).

3. PROPOSED CONDITIONS

3.1. Wiltshire Planning Policy SP50 of the Core Strategy encourages new development to contribute positively to biodiversity. Furthermore, the Wiltshire Biodiversity Action Plan sets out species and habitats listed on Section 41 of the Natural and Rural Countryside Act 2006 found within the county, including hedgerows, bats (various species) and house sparrow *Passer domesticus*.

3.2. At the site, this will be attained through sensitive and considerate design, ensuring the retention and protection of existing ecological features of value and creation of new green infrastructure.

3.3. The landscape approach is to focus on planting for public amenity around the offices and shop, with the rear of the site dedicated to wildlife as part of the buffer habitat.

3.4. Landscape plans for the site (**Appendix 1**) show the proposed habitat types.

Habitats

3.5. The following soft landscaping components are included within the scheme design.

- Ornamental planting;
- Amenity grassland;
- Swale (emergent planting);
- Ornamental hedgerow;
- Native hedgerow;
- Native scrub/shrubs; and
- Scattered trees.

Protected/Notable Species

3.6. Whilst it is considered that the creation of the above habitats would enhance the site for biodiversity, there also exists the potential to enhance the ecological value of the site further through the appropriate management of these habitats. This, in addition to the creation of additional artificial habitats would provide opportunities for a range of species to use the site in the long-term. Proposed artificial habitats include:

- Bat boxes
- Bird boxes; and

- Reptile hibernaculum.

3.7. Furthermore, the soft landscaping provisions will also provide habitat for other protected / notable species such as badgers, terrestrial invertebrates and hedgehog (Erinaceus europaeus).

Prior to handover

3.8. Prior to site clearance and construction activities, measures in line with the Mitigation Hierarchy, as detailed the Construction and Environmental Management Plan (CEMP). It will also include the details of the contractor nominated to the Biodiversity Champion who will oversee and implement the measures detailed in the CEMP.

Assumptions / Limitations

3.9. This LEMP has been based on the landscape proposals provided (**Appendix 1**). Should the landscape proposals be altered this LEMP should be updated accordingly to reflect these changes. The final locations of bird and bat boxes is to be finalised at a later date.

3.10. **Appendix 2** provides a CDM risk assessment for the recommended designs as per the Ecological Impact Assessment (ref: eg230014_EcIA_REV02). This should be reviewed by the client/developer to ensure that the Health and Safety requirements or Construction Design and Management (CDM) regulations are considered.

4. TRENDS AND CONSTRAINTS

Trends

4.1. The following are ecological trends which require consideration when implementing landscape and ecological management of the site:

4.2. Climate change should be considered when selecting landscaping species which should remain viable into the future. For example, due consideration should be given to plant species which are tolerant of drought / flooding. Management schedules should also be mindful of water availability during drought, and how landscape features should be managed under such circumstances.

4.3. Spread of pests and diseases should be considered in the sourcing of any plant stock bought into the site. Stock of British provenance is preferable, as well as those varieties which are known to be resistant to disease, for example Dutch elm disease. The management of established landscaping should consider the spread of disease such as ash die back. Future maintenance of the site should being aware of, for example, the origin of mulch taken on site and the dispersal of any arisings produced from maintenance work.

4.4. Increasing urbanisation of the site and surroundings should be considered by ensuing that planting takes into consideration the ecological landscape and wider nature networks to ensure connectivity and allow the dispersal of species without causing island effects or dead ends.

4.5. Seasonal and long-term population trends of the wildlife that use the site can be supported through the sensitive timings of works. For example delaying the trimming of hedges or trees so that food sources such as berries and nuts remain available for longer. Maintaining, and replacing when necessary, the mitigation designed for species longevity within the site will also support long term wildlife suitability within the site.

Constraints

4.6. The following highlights ecological constraints which required consideration when implementing landscape and ecological management of the site:

4.7. Presence of protected and notable species, as described in Section 2 may inhabit the site, and measures have been designed to ensure their presence is protected and accommodated during and post construction. These species should be considered during any future site maintenance. For example vegetation clearance being avoided during the breeding bird season, and sensitive management of green spaces should consider reptiles.

5. ROLES AND REPOSNSIBILIES

Delivery of the Landscape and Ecological Management Plan

5.1. The **Client** has overall responsibility for any environmental management, ecological enhancement of the site or implementation of works included in the LEMP that are scheduled during both the construction works and post-construction period. This section provides a summary of the key roles and responsibilities for implementation of the management plan.

5.2. The **Client** and their **Principal Contractor** will identify the organisations and personnel that have specific responsibilities for the implementation of works included in this management plan which are scheduled during the construction works period.

5.3. During the operational works period it will be the responsibility of the **Client** to identify the organisations and personnel that have specific responsibilities for implementation of this management plan.

Roles and Responsibilities of Staff

5.4. **The Client** will appoint an individual to act as a **Biodiversity Champion** (or equivalent) who will oversee the development, implementation, delivery and review of works included in this management plan, that are scheduled during the construction works period.

5.5. The **Biodiversity Champion** will have the authority to influence site activities and ensure that detrimental impacts on site biodiversity and environmental features are minimised.

5.6. The **Biodiversity Champion** will also have responsibility for managing the construction of the landscape and planting proposals within any environmental constraints in conjunction with all of the necessary management processes.

5.7. The individual must have sufficient authority and time on-site and knowledge of ecology and construction to carry out the role. The **Biodiversity Champion** need not be an ecologist or ecological expert.

5.8. During the construction stage the **Client** and/or the **Principal Contractor** will continue to provide the **Biodiversity Champion** with updated versions of the construction programme (should updates occur) to ensure that changes that may affect ecology are not overlooked. The **Principal Contractor** will ensure all additional contractor(s) have been adequately trained and are aware of their responsibilities (where appropriate) for implementation of this management plan, during construction.

Commitments and Resources

5.9. **The Client** is committed, including the funding to achieving ecological enhancement and environmental management of the site and this management plan will help achieve this.

Performance and Target Setting

5.10. Performance during construction and after handover will be monitored to adhere to the format as outlined in this management plan **Table 1 (Annual Works).** These tables provide the management actions that are required by key individuals responsible for managing the site at each stage of development.

Performance Monitoring

5.11. To assess compliance, the construction **Biodiversity Champion** will monitor performance during the construction works period.

5.12. A **Suitability Qualified Ecologist (SQE)** will carry out annual site visits whilst construction works are on-going and conduct a post-construction, pre-occupation compliance check as identified in the Construction and Environmental Management Plan (CEMP, ref: eg230014.02_CEMP_REV01). All works identified in Capital Works will be checked for compliance by the site **SQE** and will be signed off on completion.

5.13. Corrective action will be taken if compliance is not achieved.

Record Keeping and Data Management

5.14. The **Biodiversity Champion** will document all records of monitoring that occur during the construction works period. The records will be stored securely and made available for review as necessary. These will be maintained to provide a resource for the client and if necessary, to regulatory and statutory authorities to inspect conformity and compliance.

Training

5.15. To ensure consistent and acceptable environmental performance during implementation of the management plan, the **Client** will ensure that all staff and sub-contractors are aware of good practice protocols through their **Principal Contractor** and the chosen **Biodiversity Champion**. Relevant information on ecological management will be passed to the work force in briefings or by other suitable means.

6. SCHEDULE OF WORKS

6.1. This LEMP provides a structure to be followed on a yearly basis, providing guidance to maintain and promote features for biodiversity.

Management objectives:

- Maintain areas of the site to maximise wildlife benefits;
- Create, protect and enhance features of ecological interest; and
- Implement on-going management regimes within the site, for a minimum of ten years.

6.2. As per the Ecological Impact Assessment, there is to be the installation of artificial habitats for protected species, including hibernaculum, bat boxes and bird boxes. The exact locations have yet to be finalised. However, the management principals of these features will remain the same.

6.3. The associated capital works, including recommended plant species mix can be found in the Plant Schedule (ref: 259-SCH-001) and Planting Plan (ref: 59-201-P1) both produced by Greenhalgh Landscape Architecture.

Annual works:

- Maintenance of all soft landscaping; and
- Monitoring and maintenance of hibernaculum, bat and bird boxes.

General Requirements

6.4. All landscape maintenance work is to be carried out to a high and consistent standard and undertaken by an experienced landscape maintenance Contractor. This section outlines the operations and timings for each landscape element for a ten-year period.

6.5. Maintenance visits shall typically be undertaken once monthly between November and March and twice monthly between April and October, or as required to fulfil the objectives of this schedule, with the requirements for additional maintenance visits determined by the landscape contractor following regular on-site inspections. The Contractor shall:

- Avoid disturbing any breeding birds on the roof or trees;
- Keep planting areas neat and clean in appearance, weed and litter free, and allow specified species to develop free from unnecessary competition;

- Prevent damage to and protect as necessary existing paving, buildings, fitments, and utilities;
- Ensure all areas of hard surfacing are left in a clean condition, free from any soil, mud, leaves, cuttings and plant prunings; and
- Ensure that the works themselves do not cause inconvenience or danger to site users/visitors.

6.6. The use of any pesticides (insecticides, fungicides and slug pellets) is discouraged, and herbicides should be avoided during the as far as practicable during the operational phase. Any pesticides used shall be non-residual contact pesticides and chemical applications shall only be undertaken in suitable weather conditions as described by the manufacturers.

6.7. No chemicals shall be used near water or drains.

6.8. It should be noted that the management and maintenance operations prescribed below maybe subject to change following the findings of on-going monitoring.

Management component	Objective	Action	Month / season	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6 – 10	Years 10- 20	Years 21 - 30
Amenity grassland	Maintain a short sward for recreational and aesthetic purposes.	Cut grass twice monthly – remove arisings In periods of drought, reduce the frequency of mowing. If areas of lawn are shaded, it may require less mowing. Do not mow wet or frosty grass.	March– late October	✓	✓	✓	✓	✓	✓	✓	✓
Ornamental planting	To promote the development of healthy vigorous, well balanced plants in accordance with the growth characteristics of each species. To develop a continuous plant cover within planted beds to minimise weed growth. Ensure cultural techniques are employed which use a variety of mulches and organic fertilisers and which minimise the use of chemicals and peat wherever possible.	Application of bark mulch at a depth of 50 mm.	When required	✓	✓	✓	✓	✓	✓	✓	✓
		If using manure, use a light dressing of well-rotted manure.	When required	✓	✓	✓	✓	✓	✓	✓	✓
		Removal of spent flowers from perennial plants should be removed through ‘deadheading’.	When required	✓	✓	✓	✓	✓	✓	✓	✓
		Regular Irrigation in periods of drought if required.	All year round	✓	✓	✓	✓	✓	✓	✓	✓
Tree planting	Provision of wildlife habitat. Ensure well-balanced crowns and natural shape in accordance with the growth characteristics of each species.	Provision of stakes and biodegradable guards leave on for 5 years	N/A	✓	✓	✓	✓	✓			
		Stakes should be checked and any broken or damaged stakes during this time would be removed (as above) and replaced with ties re-fixed	Every 6 months	✓	✓	✓	✓	✓			
		Formative pruning to ensure vigorous growth and removal of damaged or diseased branches. It should be undertaken according to BS 5837:2010	When required (avoid nesting bird season)	✓	✓	✓	✓	✓	✓	✓	✓
		Where trees are felled, lopped, pollarded or coppiced, a proportion of the dead wood should be left on site	When required	✓	✓	✓	✓	✓	✓	✓	✓
		Regular irrigation during establishment, particularly during times of drought.	All year round, particularly in times of drought	✓	✓	✓	✓	✓			
Native shrubs / scrub	To promote the development of healthy vigorous, well balanced plants in accordance with the growth characteristics of each species. To develop a continuous plant cover within planted beds to minimise weed growth. To provide opportunities for nesting birds and hibernating reptiles. Retain species which provide seed, pollen and nectar which are of value to wildlife. Ensure cultural techniques are employed which use a variety of mulches and organic fertilisers and which minimise the use of chemicals and peat wherever possible.	Application of bark mulch at a depth of 50 mm	When required	✓	✓	✓	✓	✓			
		When using manure, use a light dressing and well-rotted.	When required	✓	✓	✓	✓	✓			
		Regular irrigation during establishment, particularly during times of drought.	All year round	✓	✓	✓	✓	✓			
		Areas of scrub should be rotationally cut	Every three years Between September and February	✓	✓	✓	✓	✓	✓	✓	✓
Ornamental hedgerows	Maintain a neat hedgerow for aesthetic purposes.	Allow growth to achieve desired size.	When required	✓	✓	✓	✓	✓	✓	✓	✓

Management component	Objective	Action	Month / season	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6 – 10	Years 10- 20	Years 21 - 30
		Application of bark mulch at a depth of 50 mm	When required	✓	✓	✓	✓	✓	✓	✓	✓
		If using manure, use a light dressing of well-rotted manure.	When required	✓	✓	✓	✓	✓	✓	✓	✓
		Regular irrigation during establishment, particularly during times of drought.	All year round	✓	✓	✓	✓	✓			
		Plug any gaps with suitable plants	When required	✓	✓	✓	✓	✓	✓	✓	✓
Native hedgerows	Create and maintain a green corridor providing refuge, foraging commuting habitats for wildlife, including reptiles, bats, birds and amphibians	Allow growth up to approximately 2-5 m high and 1.5 m in width.	Winter								
		Prune each side of the hedgerow on an alternate basis, every three years.	Winter			✓			✓	✓	✓
		Plug any gaps with suitable plants	When required	✓	✓	✓	✓	✓	✓	✓	✓
		Regular irrigation during establishment, particularly during times of drought.	When required	✓	✓	✓	✓	✓			
Emergent vegetation (swales)	Create opportunities for birds and invertebrates	Weed growth should be cut back regularly. Use hand tools. Avoid baring the toe of the bank	April - September inclusive	✓	✓	✓	✓	✓	✓	✓	✓
		Rotational cutting (on a 3 year rotation) to ensure that not all vegetation is cut at the same time (remove arisings)	April - September inclusive	✓	✓	✓	✓	✓	✓	✓	✓
		Weed raking	August – March inclusive	✓	✓	✓	✓	✓	✓	✓	✓
Bird boxes	To enhance the potential of the site for breeding birds by providing suitable nesting opportunities.	Bird boxes should be cleared out annually after the nesting season has finished. This is best cleared out in October to avoid the breeding period and to avoid disturbing birds wintering within the boxes	October	✓	✓	✓	✓	✓	✓	✓	✓
		Any damaged boxes should be repaired or changed as necessary and be replaced in their original positions.	When required	✓	✓	✓	✓	✓	✓	✓	✓
Bat box	To enhance the potential of the site for roosting bats by providing suitable roosting opportunities.	No maintenance is required for these bat boxes, however, replace if they become damaged.	When required	✓	✓	✓	✓	✓	✓	✓	✓
Hibernacula	To enhance the potential of the site for reptiles by providing suitable hibernation opportunities.	No maintenance is required, however, replace or replenish as required	When required	✓	✓	✓	✓	✓	✓	✓	✓

7. MONITORING AND REVIEW

7.1. As per the BNG requirements, where applicable, ecological features will be monitored and maintained over a 30-year period. Initially, monitoring will be annual and after five years, the frequency of monitoring thereafter shall be reviewed against the site's condition. Should it be identified the management and conservation objects are not being met, the management will be adjusted.

7.2. The monitoring will be carried out following best practice guidance specific to each ecological feature.

7.3. The monitoring will be carried out in June or early July of each year, during the peak growing season.

7.4. The SQE will produce a compliance report, confirming and demonstrating implementation of this management plan.

APPENDICIES

Appendix 1 - Landscape Proposals





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