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Biodiversity Enhancement Strategy

Donna's Paddock, Wargrave Road, Twyford, RG10 9PN

May 2026

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Project: Donna's Paddock, Wargrave Road, Twyford, RG10 9PN

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1.0 Non-technical summary

1.1 This Biodiversity Enhancement Strategy has been prepared to discharge Condition 6 of Planning Permission 253078.

1.2 Biodiversity improvements include installation of a sparrow terrace and insect hotel, planting of native trees and hedgerows, and a sensitive lighting strategy.

2.0 Introduction

Purpose of the report

2.1 The Biodiversity Enhancement Strategy aims to ensure it is successfully established and functioning as designed. The objectives include the following:

- Purpose and conservation objectives for the proposed enhancement measures;
- Detailed designs to achieve the stated objectives;
- Location of the proposed enhancement measures;
- Persons responsible for implementing the enhanced measures;
- Details of initial aftercare and long-term maintenance.

Qualifications and Competence of the Author

2.2 The ecologist has over 25 years of conservation experience. They are the founder of a new conservation charity and previously worked as Head of Conservation for a Wildlife Trust, Director of Studies for the Field Studies Council and Course Director and Lecturer for the University of Essex and Cambridge.

2.3 Respected organisations have nationally recognised the ecologist and they have been awarded various fellowships for their *outstanding or significant contribution* to these disciplines, including conservation and biodiversity for the delivery of landscape-scale conservation projects.

2.4 They are currently on the external advisory board for the University of Essex and represent the Chartered Institute of Ecology and Environmental Management at the University of Southampton, judge national ecological projects and are an ecological expert for the Southwood Foundation.

3.0 Biodiversity Enhancement Strategy

Purpose and conservation objectives for the proposed enhancement measures

3.1 To enhance biodiversity in accordance with the National Planning Policy Framework (NPPF).

Sparrow Terrace

3.2 House sparrows, a UK BAP Priority Bird Species, are a declining urban species that depend on small cavities for nesting. Modern buildings often lack such features, and the provision of nest boxes can help support local breeding populations. Installing sparrow boxes on-site will provide secure, long-term nesting opportunities close to suitable foraging habitat.

3.3 One WoodStone Sparrow Nest Box (Appendix 3) will be installed in autumn to provide roosting opportunities over winter, with the box established in time for nesting in the spring. The nest box will be affixed to the north-facing elevation of the dayroom (Appendix 1), subject to the suitability of the cladding, positioned beneath the eaves to create a sheltered, moderately warm environment protected from prevailing winds. This should be fixed through the external cladding into the structural framework using long screws and waterproof sealant.

3.4 The box will be installed at approximately 3m above ground level, with a clear space underneath to facilitate easy access. The box must be positioned with a slight forward tilt to prevent rain ingress. The WoodStone Sparrow Nest Box is designed with two separate internal chambers, encouraging colonial nesting between neighbouring pairs, simulating breeding conditions within the natural environment. The box is crafted using a durable blend of concrete and wood fibres, creating a thermally stable and breathable structure, ideal for long-term projects.

3.5 This location is adjacent to areas of proposed hedgerow planting on-site, and meadows, grassland and pockets of scrub within the wider landscape. These habitats can provide additional shelter and foraging opportunities, supporting the suitability of this enhancement.

3.6 Routine inspection and maintenance should be undertaken annually in autumn, once the breeding season has ended. Old nesting material should be removed to reduce the risk of parasites and disease. The box should be checked for security, structural integrity, and any signs of weathering or obstruction.

Insect Hotel

3.7 Insect hotels provide valuable nesting and overwintering habitats for a range of invertebrate species, including solitary bees, ladybirds, lacewings and other pollinators. These features contribute to the overall ecological value of the site by supporting pollination of the proposed native trees and hedgerows.

3.8 One insect hotel (Appendix 4) will be installed during autumn to provide hibernation opportunities for a variety of species over winter. This will be fixed securely to the closed board fencing along the northern boundary of the site (Appendix 1), in the north-west corner below the existing trees. This location will provide a sheltered, south-facing sunny position close to vegetation, ensuring protection from strong winds and heavy rain.

3.9 The insect hotel will be installed approximately 1-1.5 metres above ground level and where possible oriented for maximum sun exposure, which will help keep the structures warm and dry. Any surrounding vegetation will provide additional shelter and foraging opportunities for invertebrates throughout the active season.

3.10 Minimal maintenance of the insect hotel may be undertaken outside the breeding and overwintering period if materials become damaged or waterlogged.

Proposed Planting – Urban Trees

3.11 Trees in urban areas can support rich biodiversity, provide connectivity between established reservoirs, and contribute toward maintaining viable urban populations within sites. Native species provide the greatest benefit for biodiversity due to their adaptation to local conditions and their support of native wildlife.

3.12 The suggested tree planting includes native species of ecological value that will enhance the site for biodiversity, with locations noted in Appendix 1. Species include field maple (*Acer campestre*), wild cherry (*Prunus avium*), and rowan (*Sorbus aucuparia*).

3.13 Field maple provides foraging opportunities for birds through the production of seeds, has a dense structure which can be used for nesting, and supports invertebrates through the decomposition of its leaf litter. It is especially tolerant of pollution and urban stresses, making it particularly suitable for residential developments. Wild cherry has early spring blossoms, providing valuable nectar and pollen sources for pollinators such as bees, as well as supporting a wide range of bird species through fruit production. Rowan is also ecologically valuable, producing an abundance of berries in late summer and autumn, which is an important food

source for multiple bird species later in the year when other resources may be limited. Rowan is also tolerant of a range of soil conditions, and is a relatively open-canopied tree, making it well suited to residential developments and contributing to structural diversity within the planting scheme.

3.14 Trees should be planted during late autumn to early spring (November-March), whilst trees are dormant and soil moisture is higher. This reduces shock during transplantation and helps establishment of roots before spring growth begins. Planting should avoid periods of waterlogged soils and frozen ground, and appropriate aftercare should be implemented to ensure successful establishment.

Proposed Planting – Native Hedgerows

3.15 Hedgerows are linear habitats and a feature almost unique to the British Isles. Planting hedgerows on-site can maximise the ecological permeability of the area, increasing the ability of species to move safely between gardens and nearby habitats. This is particularly important in fragmented urban landscapes, with these hedgerows proposed to fill in gaps within the existing hedgerows, providing a continuous resource whilst also functioning as a boundary and screen around the dwellings, with locations noted in Appendix 1.

3.16 The species proposed include field maple (*Acer campestre*), hazel (*Corylus avellana*), and blackthorn (*Prunus spinosa*). Other species suggested include guelder rose (*Viburnum opulus*), hawthorn (*Crataegus monogyna*), and honeysuckle (*Lonicera periclymenum*). *Rosa rugosa* has also been suggested, however, this is listed as an invasive, non-native species on Schedule 9 of the UK Wildlife & Countryside Act 1981 (as amended), therefore its use is discouraged due to its risk of spreading into wild habitats. Its exclusion will help ensure that the planting scheme aligns with best practice for biodiversity enhancement.

3.17 The inclusion of these native species will provide a range of ecological benefits, including abundant flowering resources in spring for pollinators such as bees and hoverflies, followed by the production of berries in autumn that support foraging birds. Structurally, the hedgerows will form a dense, multi-layered habitat offering shelter, nesting opportunities, and protection from predators, while climbing species such as honeysuckle will enhance vertical structure and provide an additional nectar source, particularly for moths. Layered planting will also improve microclimate conditions, offering shade and humidity beneficial to invertebrates and small fauna.

3.18 Hedgerow planting should be undertaken during the dormant season (November to March), avoiding periods of waterlogged and frozen soils. Early winter planting is often best to avoid hedgerows drying out, and appropriate aftercare should be implemented to ensure successful establishment.

Sensitive Lighting Strategy

3.19 A sensitive lighting strategy will be implemented to prevent artificial light spill from illuminating dark corridors/areas of vegetation that could be used by nocturnal or crepuscular species. The lighting strategy will incorporate the following measures:

- Use only the minimum amount of light needed for safety.
- No artificial light or light spill onto retained or proposed trees and hedgerows along the boundaries of the site.
- All external lighting will use motion-sensitive timers to prevent unnecessary lighting. The duration of the timers should be kept to 1 minute to limit the duration of lit periods.
- A warm white or amber LED luminaire (2700K) with a sharp cut-off should be used due to its lower intensity, good colour rendition and dimming capability. The luminaire should feature a peak wavelength higher than 550nm to avoid the blue spectrum of light most disturbing to bats.
- A specialist downward directional luminaire should be used. Directional lighting will use LED bulbs and angle the light fully downward to avoid an upward tilt. A hood should be installed on the lights to ensure no upward light distribution. This will include any bollards.
- Narrow spectrum lighting should be used to reduce the range of species affected by lighting. The lights used should emit only minimal ultraviolet and blue light, to avoid attracting insects.

4.0 The person responsible for implementing the enhanced measures

4.1 The enhancement measures will be implemented in full in accordance with the timetable set out in Appendix 2, completed within the first available planting/installation season.

4.2 A suitably qualified ecologist or competent contractor will be responsible for inspection of the enhancements to ensure compliance with this Biodiversity Enhancement Strategy.

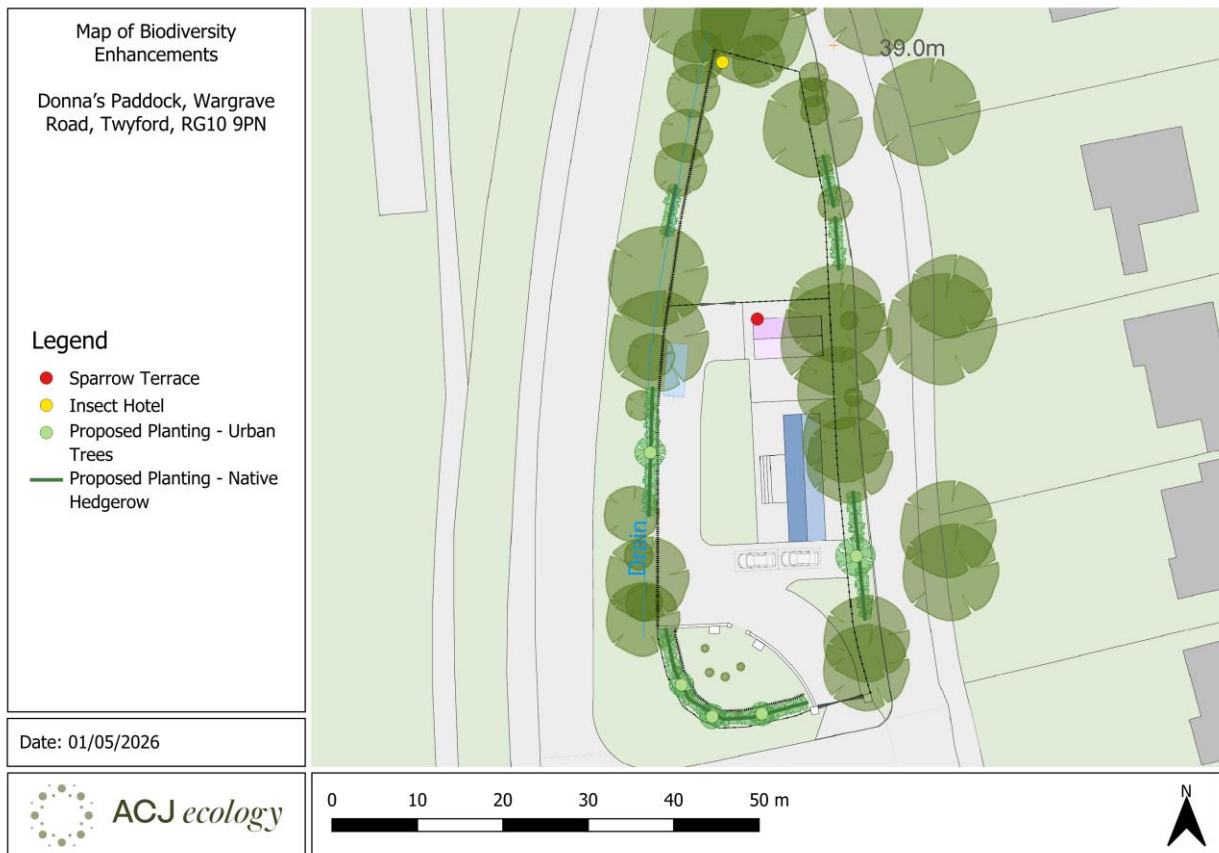
5.0 Ongoing Monitoring and Remedial Measures

5.1 The occupier will retain and manage the biodiversity features in accordance with this Biodiversity Enhancement Strategy, in perpetuity. The occupier will periodically check the ecological enhancement measures to ensure they remain secure and functional, with repairs or replacement undertaken where necessary on a like-for-like basis.

6.0 Compliance

6.1 This Biodiversity Enhancement Strategy provides the location, height, orientation and specification of all ecological enhancement features, with reference to plan 'Retrospective Proposed Site Plan, Drawing No. 24_1369_003', in accordance with Condition 6 of Planning Permission 253078. The principles of the National Planning Policy Framework (2024), Planning Policies for Wildlife including CP7 of the Wokingham Borough Core Strategy (2010) and TB23 of the Managing Development Delivery Plan (2014), and Section 41 of the NERC Act 2006 have been followed.

Appendix 1: Map showing location of biodiversity enhancements



Appendix 2: Timetable for Implementation

Enhancement/ Mitigation	Number of features	Location of enhancement	Installation/implementation date	Comments
WoodStone Sparrow Nest Box	1	North-facing elevation of dayroom	Autumn	To provide winter roost opportunities and nesting in spring
Insect Hotel	1	North-west corner of northern closed board fencing	Autumn	To provide hibernation opportunities over winter
Proposed Planting – Urban Trees	5	Boundaries	November-March	To assist with successful establishment
Proposed Planting – Native Hedgerows	6 areas	Boundaries	November-March	To assist with successful establishment

Appendix 3: Sparrow Terrace

WoodStone Sparrow Nest Box



Appendix 4: Insect Hotel

Bee, Insect & Bug Hotel

