

Persimmon Homes Ltd

Wykham Park Farm (Phases 1 & 3), Banbury

# **BIODIVERSITY ENHANCEMENT STRATEGY**

September 2023

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#### 1.0 INTRODUCTION

1.1 The following Biodiversity Enhancement Strategy for protected and priority species has been prepared by FPCR Environment & Design Ltd on behalf of Persimmon Homes Ltd to discharge Condition 4 planning consent for development at Wykham Park Farm, Banbury (Cherwell District Council Application Number 14/01932/OUT) which states:

'No dwellings shall be constructed above slab level until details of site-wide biodiversity enhancements have been submitted to and approved in writing by the Local Planning Authority. Such details shall include the provision of habitat boxes/bricks for bats, swifts and other birds; the provision of hedgehog passages; the provision of boundary treatments to facilitate the movement of wildlife; and a timetable for the approved enhancements to take place. The development shall be carried out in accordance with the approved details and timetable and thereafter maintained and retained in accordance with this condition.'

1.2 This document should be read in conjunction with the Landscape and Ecological Management Plan (FPCR, 2022¹).

### 2.0 MANAGEMENT OBJECTIVES AND MONITORING

2.1 The Biodiversity Enhancement Strategy has been presented in tabular format for conciseness and ease of use.

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<sup>&</sup>lt;sup>1</sup> FPCR, 2022. Landscape and Ecological Management Plan



Table 1: Ecological enhancement features, objectives and management

FEATURE	OBJECTIVE	OUTLINE MANAGEMENT TO ACHIEVE OBJECTIVE - CONSTRUCTION PHASE	OUTLINE MANAGEMENT TO ACHIEVE OBJECTIVE - POST CONSTRUCTION	An ecologist should identify suitable trees for bat boxes within the woodland.  Supervision is not required for the installation of the boxes	
1. Bat Boxes	Create new roosting opportunities for bats  A total of 24 bat boxes are to be incorporated into the development to enhance the roosting opportunities for bats on-site (see Figure 1) comprising:  • 9 Schwegler 2F Bat Boxes (General Purpose) (or similar) and 9 Schwegler 2FN bat boxes (or similar) on suitable trees within the retained woodland.  • 6 Vivara Pro Build-in Woodstone Bat Boxes (or similar) on residential buildings across the site.	Install using the following guidelines:  • Locate on south, south-west or south-east orientation between 3m-5m high  • Ensure no obstructions nearby e.g. aerial and satellite dishes etc	Annual check to ensure boxes are not damaged or missing     If boxes need repairing an ecological consultant should be contacted for assistance		
2. Bird Boxes	Create new nesting habitat for birds. Install a combination of 235 new bird boxes which will be positioned on buildings and trees (see Figure 1) comprising:  • 225 S-bricks (100mm cavity width) on residential buildings across the site in groups of 5 providing nesting opportunities for swifts  • 6 Schwegler 1B (32mm hole) Nest Boxes and 3 Schwegler 1B (26mm hole) Nest Boxes on suitable retained trees providing nesting opportunities for a range of tit species  • 3 Vivara Pro Barcelona Woodstone Open Nest Box	Install using the following guidelines:  Shaded area out of direct sunlight  Away from windows  Minimum height above ground – 4m  Ensure no obstructions nearby (e.g. aerials, satellite dishes, etc.)  Swift boxes should be installed at least 5m high with a clear flight path and avoiding south-facing sites	Low Maintenance  • Clear out old nests and debris during winter months.	An ecologist should identify suitable trees for bird boxes within the woodland.  Supervision is not required for the installation of the boxes	
3. Hedgehog Access Routes	Create access between boundary fencing for free movement of hedgehogs (See Figure 1).  Solid fencing can cause access issues for hedgehogs which can be compensated by creating an access route within the fence line.	Provide an access route for hedgehogs using the following specification:  Leave or cut gaps within the fencing along the site boundary.  Gaps should be 13cm by 13cm).  Install signs above the gaps and provide information to the residents regarding the function and importance of these	Maintenance Free	Supervision not required	

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FEATURE	OBJECTIVE	OUTLINE MANAGEMENT TO ACHIEVE OBJECTIVE – CONSTRUCTION PHASE	OUTLINE MANAGEMENT TO ACHIEVE OBJECTIVE - POST CONSTRUCTION	Supervision by an ecologist	
4. Deadwood Features, Brash/Log piles& Dead hedging	Maximise the use of deadwood features on site.  Large deadwood and tree off-cuts arising from site can be utilised to create biodiversity enhancements. These will provide sheltering opportunities for invertebrates and hedgehogs and a foraging resource for small mammals and hedgehogs (See Figure 1).	Creation of Log piles  Logs should be left in contact with the ground and built into a compact pile to maintain humidity. Stakes should be driven into the ground either side of the log pile to prevent the pile from collapsing.  Log pile Detail  Log pile be the in contact with the ground in dappled shade and built into a compact pile to maintain humidity. Stakes should be driven into the ground either side of the log pile to prevent the pile from collapsing.  Larger diameter logs (at least 100mm thick) with bark are of most value, particularly hard wood like ash, oak and beech, whereas freshly cut willow and poplar may re-sprout. Twigs, stems and shrub off-cuttings may also be added. Climbers may be allowed to grow thinly over the dead wood pile for stabilisation and moisture. Full sun will dry and heat the wood, supporting little life, whereas dense shade will promote the growth of fungi but may be too cool for insects.  Logs with a minimum diameter of 100mm and bark are of highest value in the pile.  Twigs and shrub off-cuttings may be added.  Creepers may be left to grow over the pile for stabilisation. Management might be required to prevent overshadowing of the pile.  Stakes to prevent pile collapse.  Logs left in contact with the ground.	Restock deadwood habitat with woody vegetation that originates from routine maintenance of trees and woody vegetation on site.  Low Maintenance  Restock deadwood habitat with woody vegetation for the maintenance of trees and woody vegetation on site.	Supervision not required	

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Table 2: Monitoring programme - post construction

FEATURE & LOCATION	MONITORING	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10 AND THEREAFTER	INDICATOR THAT OBJECTIVE HAS BEEN ACHIEVED BY YEAR 10/20
1. Bat boxes	<ul><li>✓ Have boxes been installed?</li><li>✓ Have boxes been checked for damage or missing?</li></ul>	<b>✓</b>	<b>~</b>	>	<b>~</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	24 bat boxes installed on trees and housing
2. Bird boxes	<ul><li>✓ Have boxes been installed?</li><li>✓ Has annual nest detritus been removed?</li></ul>	<b>✓</b>	<b>~</b>	<b>~</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	~	<b>✓</b>	237 boxes and bricks installed on trees and housing
3. Hedgehog Access Routes	✓ Have gaps been left or created between boundary fencing?	<b>*</b>										Gaps left or creating a viable route for hedgehogs.
4. Deadwood Features, Brash/Log piles & Dead Hedging	<ul> <li>✓ Have log piles, dead hedging and feature deadwood been created?</li> <li>✓ Have the log piles been re-stocked?</li> </ul>	<b>V</b>				<b>√</b>					<b>~</b>	Log piles, dead hedging and feature deadwood present providing shelter for invertebrates and hedgehogs.



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# Key

## **Proposed Blodiversity Enhancements and Locations**

- Log Piles
- Hedgehog Highway
- The S Brick (or similar) (Groups of 5)
- 3 x Schwegler 1B Nest Box (32mm hole) (or similar)
- Vivara Pro Build-in Woodstone Bat Box (or similar)
- Woodstone Build-in Open Nest Box (or similar)
- Bat and Bird Boxes to be installed on suitable trees within the woodland:
  - 9 x Schwegler 2F Bat Boxes (or similar)
  - 9 x Schegler 2FN Bat Boxes (or similar)
  - 3 x Schwegler 1B (26mm hole) Nest Box (or similar)
  - 3 x Schwegler 1B (32mm hole) Nest Box (or similar)
  - 3 x Woodstone Barcelona Open Nest Box (or similar)

# **Bat/Bird Box Recommendations (Or Similar)**



1B Schwegler Nest Box (3 x 26mm Hole, 6 x 32mm hole)



**Vivara Pro Barcelona WoodStone Open Nest Box (X3)** 



The S Brick (X225 - groups of 5)



Schwegler 2F Bat Box (General Purpose) (X9)



**Vivara Pro Build-in WoodStone Bat Box (X6)** 



2FN Schwegler Bat Box (x9)



Persimmon Homes Ltd

Wykham Park Farm Parcels 1 & 3, Banbury

Biodiversity Enhancement Plan



BJC

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Figure 1