

# Building for Biodiversity



## Introduction

Habitat First Group's (HFG) sites, Lower Mill Estate (Cotswolds) and Silverlake (Dorset), were the first UK developments to be accredited with the Building with Nature Full Award (Excellent) for all completed phases.

Both sites provide rich networks of green infrastructure, bringing benefit to wildlife and people through a landscape-led approach to restoring quarry sites. Onsite net biodiversity gain is achieved by protecting and enhancing existing habitats, creating new habitats and

ensuring species of conservation concern/protected status are conserved. The net biodiversity gains exceed those that would be delivered by the mineral Companies ROMP (Review of Mineral Permissions).



## Biodiversity in the built environment

Biodiversity across all sites is protected, enhanced and monitored. Within the built environment the following species/species groups are given extra help:

### Bats

Bat boxes; retrofitted bat lofts in bin store buildings; & purpose built bat houses have resulted in a range of bat species across both sites. Natterer's bats regularly roost behind the wood cladding of the Habitat House.

### Otters

Reed-lined ditches, ponds & lakes; artificial otter holts; & low intensity lighting has resulted in otters living in the heart of Lower Mill Estate.

### House martins

60 artificial nests were put up at Lower Mill Estate in 2005 and were quickly used. Natural nests are now built under the eaves of many homes and the house martin population is now considered the largest in the UK (BTO pers comm) at around 190 nests annually.

### Swifts

Swift towers erected at both LME and Silverlake & swift bricks being installed in suitable walls. Swift calls played from April to attract birds.

### House sparrows

150 nest boxes installed for house sparrows (now a red-listed bird of conservation concern). Boxes put up in groups as the birds nest in loose colonies.

### Great crested newts

Present on both sites. Ponds created in 25% of gardens. Large newt 'buffer zones' created with pond complexes & suitable terrestrial habitat with good connectivity across the sites.

### Brown hairstreak butterfly

Only known breeding population in Gloucestershire found at LME. Blackthorn (the food plant of their caterpillars) is planted in every hedgerow in the development to encourage the butterfly population to grow and spread.

### Odonata

Between 16 and 18 species of Odonata found on each site in ponds, ditches & lakes.

### Wildflower areas & Heathland protection

Native wildflower areas created at LME with more being converted. At Silverlake protection of lowland heathland on site is high priority so only a simple seed mix, approved by County Council & Natural England is used.



## Making space for nature

HFG sites are designed for biodiversity, sustainability and climate resilience. Green and blue infrastructure assets create spaces where wildlife naturally flourishes. Green & Blue assets include:

- Green roofs (wildflower & sedum)
- Natural building materials (wood & local stone) where possible. Other materials used are recyclable. New properties are designed to last for 1000 years and have a full warranty
- SuDs – lakes, ponds, channels, ditches – all vegetated; porous surfaces where possible

- Low level, low intensity lighting suitable for bats and other nocturnal animals
- Native planting and wildflower areas
- Waste water treatment – At Silverlake, waste water is treated on site. The treatment system consists of advanced N-SAF units to treat the waste water before it passes through a wetland treatment system. The system is designed to discharge less nutrients into the environment than the former agricultural landscape, thus reducing the overall pressure on Poole Harbour SSSI / SAC.



Regular otter 'sprainting' site in the development.



Some of the 150 nest boxes put up to encourage House sparrow nesting.



Swift tower.



House martin nests in, under and on top of artificial nests put up in 2005.



Brown long-eared bat house built from old quarry sand hopper. Recycling at its best.



## Conserving biodiversity for the future

The long-term security of our green and blue infrastructure assets and their associated wildlife is protected during the development phases and for the lifetime of the developments. This is achieved by:

- Detailed Landscape & Ecological Management Plans are created for each site & updated every 5 years. These ensure all habitats & species are managed sensitively & at the correct times of year (i.e. no hedge cutting during breeding bird season)

- A series of wildlife audits are undertaken annually by independent ecologists & the results are submitted to relevant District Councils who monitor for any potential impacts (+ or -) of the developments on resident wildlife and habitats.

- A Nature Conservation Fund is established on each site as part of the Section 106 agreement & this can be used for conservation & community projects within set catchment areas around each site.



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