



BIODIVERSITY BEST PRACTICE CASE STUDIES





THE REDROW DEVELOPMENTS BOOSTING BIODIVERSITY

Going beyond the legislation and providing nature for people

In February 2024, the Government made biodiversity net gain (BNG) mandatory as part of the Environment Act. At Redrow, however, we've been honing our focus on nature for several years now.

Integrating nature and wildlife habitats into new communities is a vital part of our planning and design stage for every new development. In 2020, we shared our commitments within our Nature for People biodiversity strategy, developed in partnership with the Wildlife Trusts.

Our strategy goes beyond the requirements for biodiversity net gain and ensures that our developments are designed and delivered to benefit both wildlife and people, while supporting resilience to climate change.





CADDINGTON WOODS CHAUL END, BEDFORDSHIRE

A double award winner, this thriving nature-led community is a 22-hectare site where we've made significant ecological enhancements. The development will eventually feature 314 new homes amid eight hectares of nature-rich and amenity green space. We've reintroduced wildlife-friendly habitats to land previously unsupportive of flora and fauna, through partnership work and a commitment to achieving BNG.

The background

We acquired the site from Vauxhall/ General Motors who had owned the land since the 1950s and most recently used it for vehicle storage. A 15-hectare tarmac car park, which had negligible value to wildlife, covered more than 60% of the site. A further 0.5 hectares was made up of buildings, grassland patches, scrub and ponds. Around the edges were 7.7 hectares (33% of the site) of woodland.

Our approach

In creating this sustainable new neighbourhood we've adopted an innovative approach to environmental and community infrastructure.

Retention and enhancement of existing habitats was a key focus. We designed the layout so the new homes sit alongside the existing woodland, which is being enhanced for nature and made accessible for residents. We then planned a comprehensive scheme of biodiverse planting, including wildflower meadows and trees. We've also improved the existing ponds and created new habitats for wildlife including species-rich grassland and native shrub planting around new ponds and swales. These provide shelter, food and water for a variety of wildlife.

The final development will have eight hectares of green or public open space for residents and the local community to enjoy including a play area.

The site is forecast to achieve 63% BNG, far beyond planning requirements.

We wanted the project to be a shining example of how nature rich spaces don't just benefit wildlife but can provide a better way to live for residents and enhance wellbeing.

We've also built a state-of-the-art zero carbon community centre on site powered by solar PV panels, which offset its carbon footprint.

The development also provides 94 affordable homes, including 46 endowed by Redrow to the CaSE Trust and local community, which will ensure the legacy of the site. This pioneering community trust is harnessing revenues from the rent of the affordable homes, which will see £5million invested into the area over 20 years to support the new neighbourhood. It will fund bespoke bus services; manage the woodland, open spaces and landscaping; and run the community centre. After 20 years it will leave a 'sinking fund' of £1m for continuously upgrading and improving the Trust properties, community centre, play area and public open space.

Partnerships to support nature

We worked with the RSPB to design the green spaces and blue infrastructure to ensure they are ideal for wildlife. The RSPB also advised on landscaping for four show home gardens to highlight measures homeowners can introduce in their own gardens.

Partnering with the Bumblebee Conservation Trust we introduced pollinator friendly habitats across the site, while local school children assisted with bee-friendly bulb planting and creation of bee hotels. Homeowners received a welcome pack, which included wildflower seeds and information leaflets.

We've also worked closely with the People's Trust for Endangered Species and British Hedgehog Preservation Society to develop 'Hedgehog Highways' assisting with safe roaming.

We have retained the woodland, with a management plan in place to ensure its biodiversity value and improve its condition. Logs from coppicing are left on the woodland floor to provide habitats for wildlife, while new bat and bird boxes encourage nesting. We also constructed the woodland paths using low-impact methods to provide access for the community and have installed information boards to help people explore and enjoy the woods.

CIRIA named Caddington Woods Habitat Creation Project of the Year in the large - medium scale biodiversity enhancement category at the Biodiversity Challenge Awards 2022. It also scooped the silver award for Best Public Realm at the WhatHouse? Awards 2021.



SAXON BROOK, EXETER, DEVON

Saxon Brook is the UK's first ever pollinator friendly housing development, designed and created with support from the Bumblebee Conservation Trust (BBCT). Being built on former farmland on the edge of the historic city of Exeter, Saxon Brook was an ideal location to provide improved, nectar rich habitats for bumblebees and other pollinators.

The background

In the last 80 years UK bumblebee populations have crashed and two species have become extinct. Factors in this decline include the intensification of agriculture, increased use of pesticides and climate change. As well as being important in their own right bees are vital to our own survival because we rely on them to pollinate fruit and vegetables for food production.

In 2016 we set in motion plans to become the first major housebuilder to partner with the Bumblebee Conservation Trust to introduce nectar-rich plants to our developments across the country and to educate customers and local communities on how they too can help boost the UK's bumblebee populations.

Still ongoing, the 300+ home Saxon Brook was designed to protect and enhance wildlife habitats at the same time as providing beautiful green spaces that actively promote health and wellbeing for residents. The early part of the development played a part in informing our Nature for People strategy and was one of three pilot projects launched to research how we could create biodiversity net gain (BNG) on developments, eight years before the legislation came into force.

Our approach

Experts at the Bumblebee Conservation Trust worked closely with our landscape architect contractors Tony Bengier Landscaping, who are also undertaking the ongoing maintenance of Saxon Brook.

The landscaping was designed to ensure the optimum habitat in which bumblebees can thrive. An orchard has been planted boasting 70 fruit trees. Designed to create a perfect bee habitat in spring,

it includes apple, plum and pear species and residents can pick their own fruit, helping to keep the community healthy and encourage children and adults alike to grow their own produce. Alongside these are several other landscaped areas including wildflower meadows and nectar rich planting around ponds, wetland gardens, woodland areas and allotments plus new bird and bat boxes, insect 'hotels' and barn owl box habitats.

We also wanted to extend our remit to educate and encourage new residents and the wider community to play a role in safeguarding bumblebee populations and reversing their decline.

A bumblebee trail was created, which includes wildlife sculptures designed by a local artist. Each sculpture features an information board to guide and educate people about bumblebees and how to encourage them in their own gardens.

All new homeowners at Saxon Brook received a special information brochure with information about bumblebees and how to protect and nurture them. New residents were also gifted membership of the Bumblebee Conservation Trust.

Saxon Brook is forecast to achieve a biodiversity net gain of 15% over pre-development levels and has created a lasting legacy with managed community green space that will promote native plants and animals for the future. The development won a bronze award for Best Public Realm at the WhatHouse? Awards 2022.





PADDOCK GREEN EAST HOATHLY, EAST SUSSEX

As its name suggests, Paddock Green was formally a paddock and horse stables with huge potential for biodiversity enhancements as part of redevelopment plans.

As well as becoming home to 202 new properties the land is now forecast to achieve a BNG of more than 30% thanks to retention and enhancement of the existing ecological features on site and the introduction of new habitats, including 42 new trees on the edge of existing woodland and a 158% increase in hedgerow biodiversity units.

The layout was carefully designed to protect links between existing key natural habitats and improve them with edge appropriate habitats. For example, the areas around the existing pond have been enhanced to provide even more places where wildlife can thrive.

The background

When we acquired the land this former equestrian site was mainly made up of species-poor grassland. Existing features included a seasonal stream close to the centre and an ancient woodland, Alders Wood, outside the north east boundary, which required careful buffering. We planned to protect and enhance as much of the existing habitats as possible while introducing new species-rich areas around them.

While there was no statutory target for BNG at the time of planning a minimum target of 10% improvement was set internally. However, with careful consideration, we have been able to boost that target three-fold.

Our approach

Our plans include three new ponds for attenuation that are designed to provide an ecological boost with native planting around them, plus the planting of species rich grasses and areas of wildflower meadow throughout the site to provide habitat for a range of insects and species and nectar rich plants for pollinators.

In total we're planting more than 40 additional trees next to the ancient neighbouring Alders Wood to create a buffer and provide attractive views from the homes, as well as additional planting in a woodland friendly seed mix.

To ensure these natural areas are all accessible for residents to enjoy we've created a series of footpaths and cycleways throughout the development, linking the homes to the central natural play area, pockets of green space and following alongside the stream and ponds to create natural focal points.

The success of this development's biodiversity boosting measures have been centred around enhancing the existing ecological features. We've created plentiful green space between the homes to promote wild play and encourage time spent outdoors. These social areas will help to create a thriving new community as the development takes shape.



MILL MEADOWS SUDBROOK, MONMOUTHSHIRE

Located on the site of a former paper mill in Sudbrook, South Wales, our Mill Meadows development now boasts a breeding population of one of the UK's rarest species of bat, the Lesser Horseshoe bat, where previously they only roosted. This achievement provides evidence that a considered approach to conservation alongside new development can have a positive impact on native wildlife.

Thanks to the careful remediation of the site and the creation of the new habitats, it is now a haven where nature and people can live side by side.

The background

Close to the River Severn Channel, just north of the M4 Severn Bridge, the 100-acre site was acquired by our Harrow Estates division from international packaging firm DS Smith Plc.

Following closure of the mill, where industry had once boomed, nature had once again staked its claim on the site. The main building had become a roost for bats but featured deteriorating asbestos, which posed a risk to human health.

We worked closely with Monmouthshire's planning authority and Natural Resources Wales to formulate a plan for mitigation at the site and a great deal of work was undertaken by our consultants Arcadis.



Our approach

Before a brick was laid at Mill Meadows, a purpose-built bat house was installed over six months to provide a new roosting place for the bats. This improved habitat ensured that the bats could be rehomed before the old mill buildings were carefully demolished.

Among the bat species that had roosted in the old mill were the Common Pipistrelle, Long-Eared bat and Lesser Horseshoe bat. The latter is a protected species in the UK, breeding throughout the summer in mixed sex colonies and hibernating over winter. And, unlike other species of bat, they don't use boxes.

Therefore, the bat house was designed to suit their needs, with grillages in the walls and access tiles in the roof as well as raised ridge tiles. Larch lap cladding on the exterior provides extra crevices for bats. The interior contains a cool room, tower and a hibernation room as well as access internally to the cavity of the building.

Prior to the construction of the bat house, the Lesser Horseshoe bat was not known to have bred at the site, but in 2021 our ecologists discovered pregnant females and pups. This is a real success story for our work protecting them and for the potential recovery of the species.

In addition to the new bat house, a relocation plan was also required for the population of slow worms. This included the building of refuges and hibernaculas in the retained woodland area before the slow worms could be successfully captured and relocated outside of the working site.

Alongside 212 new homes and these new bespoke habitats we've also created a large area of public open space on the south west portion of the site, which will contain a footpath link from the development to the Wales Coastal Path so residents can enjoy the scenic surroundings of the Severnside area and beyond.

