

Biodiversity Initiatives at Bourn Quarter



PROJECT:
Bourn Quarter Business Park



COMPANY:
Savills Investment Management



LOCATION:
UK

Challenge

Bourn Quarter, a 25-acre multi-purpose R&D and technology focused business park, originally formed part of Bourn Airfield, a WW2 bomber base that opened in 1941 and closed in 1945. This brownfield site, previously occupied by three aircraft hangars and later used for the manufacture of commercial vehicle chassis and bodywork panels, presented significant environmental challenges. Transforming this previously developed and neglected land, into a thriving natural habitat required innovative and sustainable practices. The key challenges included soil contamination, soil erosion, establishing native flora, managing light pollution, and creating habitats for various species, all while ensuring the functionality and appeal of the site for its occupants.

Solution / Approach

At Bourn Quarter, various biodiversity initiatives have been implemented to enhance the ecosystem. An ecologist was engaged to provide guidance on insect boxes. Bird boxes were designed to offer nesting opportunities for a range of bird species. Given the presence of a rare local bat species, particular attention was paid to minimising light pollution. To minimise the use of grass turf, wildflowers and native species were prioritised to enrich the site's natural green infrastructure. Additionally, a sustainable urban drainage system was designed to discharge water at a greenfield runoff rate, and provide a vibrant habitat for wildflowers, and other native species.



Results

- **Insect Hotels:** Numerous insect species now inhabit the 25 hotels, contributing to pollination and pest control.
- **Wildflower Seeding:** Wildflower seeding has been incorporated wherever possible into the landscaping. In the event where the seeding was not successful, wildflower turf was introduced. This has created a visually appealing landscape. Occupants have positively commented on the aesthetics.
- **Bird Boxes:** The installation of bird boxes has led to an increase in nesting and birds enhancing local biodiversity.
- **Native Trees and Shrubs:** Despite initial challenges, the native trees and shrubs are thriving, contributing to carbon sequestration and providing habitats for various species. Nearly 2,500 trees and shrubs have been planted.
- **Light Management:** The reduction in light pollution has supported the local bat population and other nocturnal wildlife.
- **Urban Drainage System:** The balancing pond effectively manages rainwater runoff, supports a variety of species, and serves as a central meeting point for tenants.



Outcome

Insect Hotels

To foster a healthy ecosystem, 25 insect hotels were strategically placed around the perimeter of the walking trail. Constructed from natural materials such as bamboo and wood, these hotels offer hollow tubes that attract a variety of insects, including beetles, woodlice, spiders, and bees. Positioned mostly on fence posts rather than trees or railings, these structures provide essential nesting habitats without disturbing the natural landscape.

Wildflower Seeding

Wildflower seeding was implemented to replace the old concrete site with a vibrant wild habitat. Ecologists and landscape architects selected wild flora specific seed mixes to suit the diverse conditions of the site. The project utilises grass sward with Germinal WFG20 to create a sustainable, lush green space that supports biodiversity and soil health. Upper slopes are enhanced with Emorsgate EM8, a wet meadow seed mix ideal for moisture-retentive soils, promoting a diverse plant community. Lower swale areas are planted with Emorsgate EP1, a seed mix suited for wet conditions that helps manage stormwater runoff but also enhance the site's aesthetics. Native buffer zones are established with woodland species and under seeded with Emorsgate EW1 to protect habitats, stabilise soil, and filter pollutants. There is ongoing maintenance of the wildflowers, which is crucial to manage dominant species and

maintain a diverse ecosystem. Additionally, phase two plans include installing plaques at the base of trees to educate tenants and visitors about the various species of animals and trees that inhabit the area.

Bird Boxes

To attract and support a variety of bird species, including birds of prey, approximately 20-30 bird boxes made of fibre-reinforced ceramic were installed around the site. These boxes are strategically placed on the corners of buildings, providing safe nesting spots and contributing to the local avian biodiversity.

Native Trees and Shrubs

Nearly 2,500 native trees and shrubs were planted to improve carbon sequestration and enhance the natural environment. Challenges included wind exposure, which required support structures during the initial establishment period, and managing rodent damage. Despite these challenges, the trees and shrubs have become a crucial part of the site's green infrastructure, relying primarily on natural rainfall after establishment.

Light Management

To protect the local wildlife, particularly the rare Barbastelle bat, the building's external lighting was minimised. This approach reduced light pollution and preserved bat flight corridors. External lighting is kept to a minimum, with no illumination on unit numbers or yards, ensuring a dark environment conducive to nocturnal wildlife activity.



Urban Drainage System

The sustainable urban drainage system (SUDS) at Bourn Quarter includes a balancing pond that manages rainwater runoff, mimicking the natural water cycle of a greenfield. This system prevents excessive runoff and promotes the creation of habitats for wild species such as ducks and other native species around the waterway. Phase two plans involve harvesting rainwater for site use, enhancing water conservation efforts.

Company

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