

Biodiversity net gain. Good practice principles for development

Case studies

Tom Butterworth *WSP*

Julia Baker *Balfour Beatty*

Rachel Hoskin *Footprint Ecology*



Griffin Court, 15 Long Lane, London, EC1A 9PN

Tel: 020 7549 3300

Fax: 020 7549 3349

Email: enquiries@ciria.org

Website: www.ciria.org

3 Development of 2500 homes at land east of Aylesbury

Details

Organisations	Barratt Developments PLC, RSPB, Southern Ecological Solutions (SES), BDW Trading Limited, Ashfield Land Ltd
Contact	team@ses-eco.co.uk / sustainability@barrattplc.co.uk

3.1 PROJECT SUMMARY

A new urban development combining community and biodiversity enhancements comprising:

- 2450 homes
- 10 hectares of employment land
- a neighbourhood centre
- two primary schools
- construction of the eastern link (part) and the Stocklake link road (rural section)
- green infrastructure (GI)
- associated community facilities.

It will also support infrastructure including an expanded electricity substation and flood defences.

At Kingsbrook, Barratt Developments, the RSPB and SES are working with Aylesbury Vale District Council (AVDC) to set a new benchmark for a commercially-viable housing development that delivers both biodiversity recovery and biodiversity gains. This has been achieved through an ecology-led master planning process in partnership with key stakeholders, contributing to the Kingsbrook development. It is becoming a true ecological exemplar.



Figure 3.1 Kingsbrook, Aylesbury Vale (from HM Government, 2018)

The master plan has been shaped by a suite of surveys that have provided a robust ecology baseline upon which the mitigation hierarchy has been applied. Key GI has been retained and improved with complementary habitats that provide well-connected, ecological networks through the site. Habitat creation includes, but is not limited to, the restoration of arable fields to species-rich lowland meadows, wetland grasslands and the creation of a 100 hectares nature reserve.

Wildlife is being welcomed within the built environment through the adoption of wildlife-sensitive lighting, incorporation of habitat features within the development including the houses, SuDS, gardens, schools and community buildings, through to road verges, roundabouts and extensive green corridors. In addition, there will be community features such as an orchard and allotments, which are biodiversity-rich habitats.

The scheme started with SES undertaking the habitat creation and management works and managing the delivery of biodiversity features within the built environment. Progress on delivery is being recorded and shared with key stakeholders.

The success of Kingsbrook in the long term is dependent of the local community, and SES and the RSPB have been working on community engagement. Communities will be invited to embrace the idea of living and working in a nature-friendly development and to become active participants in green spaces and wildlife conservation projects.



Figure 3.2 Landscape masterplan of Village 2, Oakfield Village

3.2 OUTCOMES

SES was commissioned by Barratt Developments plc to design, plan, and carry out a suite of ecological surveys to inform an Environmental Impact Assessment (EIA) on land east of Aylesbury, a site of more than 300 hectares. Following outline approval, SES has updated the surveys and helped shape and deliver Village 2 (Oakfield Village). Around 60 per cent of Kingsbrook will be GI, including over 100 hectares of accessible, wildlife-rich open space, orchards, hedgehog highways, new ponds, tree-lined avenues, fruit trees in gardens, bat, owl and swift nesting boxes and nectar-rich planting for bees. This achievement was based upon targeted ecological surveys, effective working within a multi-disciplinary team, extensive stakeholder liaison and ecosystem services principles (people and wildlife interwoven for the benefit of both).

The scheme will deliver vital housing in areas where the habitats are of lower ecological value, while retaining and improving those more valuable habitats. Land east of Aylesbury (Kingsbrook) and Village 2 (Oakfield Village) has recently been featured in a document by the UK Green Building Council (UKGBC, 2015) and was highlighted in Defra's 25-year environment plan (HM Government, 2018).

The development includes conservation work for black poplars by planting a number of these iconic trees at the site. The development will eventually be home to the largest black poplar woodland in the country.

New home owners are encouraged to include wildlife-friendly planting in their gardens according to the Barratt Homes (2018) garden guide and can view three wildlife friendly gardens in our show homes to get tips and ideas. To date over 75 innovative integral Swift bricks have been included that were designed in partnership with Action for Swifts, the RSPB, Manthorpe Building Products and Barratt Developments plc to ensure good ecological design and ease, and efficiency of incorporating during building work. The brick is available to the whole sector.

Barratt Developments plc's national partnership with the RSPB is helping to translate the lessons learnt at Kingsbrook across their development portfolio. The garden guide embeds biodiversity into developments, encouraging the planting of high-value plant species that support more wildlife. Kingsbrook will allow new ideas and good practice to be promoted to inspire the UK's housing industry, government and planners to 'give nature a home'.