# NW Bicester Eco-development

## Key Issues
This case study focuses on landscape design and Green Infrastructure issues in the design stages of this development. The project site is located in an area of open countryside beyond the existing Bicester perimeter. The project development has been progressed in accordance with the tough sustainability standards in PPS1: Eco-towns. This includes achieving zero carbon, water neutrality and achieving a net gain in biodiversity. All of these have been achieved through our proactive input into the design development.

A key objective has been to enable the countryside to infiltrate the development with green open spaces linked into Bicester town. In addition, PPS1: Eco-towns requires provision of 40% open space at NW Bicester. The existing landscape features of greatest biodiversity are the hedgerows – they have been retained and augmented with supporting habitat and management. They form a skeletal framework for the green infrastructure, together with river corridors and local topography. Another consideration is the local landscape character, particularly due to the existing Greenfield nature of the site.

## Purpose of the project
Identified by central government as one of the original four Eco-towns, NW Bicester is seen as a major step towards meeting the government's green policy pledges and Britain's transition to a low carbon economy. The developers of this 5,000 home mixed-use development (P3Eco / A2dominion) aim to meet the sustainability targets of PPS1: Eco-towns, whilst still delivering a commercially attractive and community driven development.

## Description of the project
This residential home led eco-development includes on-site energy centre(s), community facilities and business space. It is located immediately north-west of Bicester on 416ha of Grade 3 agricultural land. It is being progressed in two phases – the Exemplar (to be complete in 2016/17) and the wider Masterplan. Construction will take 18 months for the Exemplar site. Sensitive receptors include local residents, landscape features, heritage assets and ecological receptors.
Lessons learnt
Very early involvement of environmental specialists was integral to the development of the eco-development design:

- To manage risks and avoid programme delays our environmental specialists identified key constraints and suggested generous buffer zones around sensitive constraints before the architects started to draft their proposals.
- Our landscape architects planned for long-term land management through developing a Green Infrastructure Strategy. Green infrastructure is the living network of integrated and multifunctional green spaces, water and environmental systems in and beyond urban areas. The landscape team led this Strategy, creating landscape as a primary infrastructure on the site.
- The Green Infrastructure Strategy has helped to shape a more sustainable development. Through our Green Infrastructure design we were able to reduce the overall footprint of the development by integrating landscape, biodiversity and drainage together.
- Our mitigation through design is more energy and resource efficient by integrating design, avoiding environmental risk and avoiding inefficient retrospective mitigation.

Lessons learnt cont. -
- Seasonal constraints were identified and programme delays avoided by early translocation of species. Sustainable design features (e.g. retained / enhanced existing vegetation) were identified and the EIA guided the design by avoiding development in Flood Zone 1.
- State of the art visualisations (photomontages) were well received by the local authority who commented they were a particularly helpful component of the planning submission.
- The Commission for Architecture and the Built Environment (CABE) Ecotown Panel were highly complementary of the landscape component of the scheme.

By early involvement, collaborative working and agreement with consultees, environmental impacts were minimised despite the change in character of the area. The overall design and quality of the development has been improved by the EIA process.

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