



Ecology Consultancy

Briefing

Issue 13



Sound ecological advice helps SUSTAINABLE HOUSING DEVELOPMENT gain planning permission

Green walkway - Photo: La-Cita-Vila on Flickr

Outline planning permission has just been granted for a mixed-use development of homes, shops, schools, and other services just north of Norwich. The project is described as “the most authentically sustainable new development ever built in the UK”.

Multifunctional green spaces, varying in size and character are a very important component of the proposals for North Sprowston and Old Catton. The Ecology Consultancy will help create a human habitat – an urban place – which is both particularly rich in greenery, texture and ecology, and a distinctive, attractive and enjoyable place to live, work and play.

Inside...

- ◆ Working with designers
- ◆ Imaginative bat surveys
- ◆ Expert badger mitigation



Rescued! Brown long-eared bat
Photo: Jackie Watson

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The 3,520-home sustainable urban extension at North Sprowston and Old Catton in Norfolk, has been proposed by sustainable development company Beyond Green. The proposals received the green light from planners with a resolution to grant outline planning application consent. This follows The Ecology Consultancy's East Anglia office working closely with Beyond Green, to turn ecology from a possible constraint into a positive boost for the development.

In addition to more than 3,500 new homes, the proposal includes two new schools, new bus services, and over 80 hectares of green space, including a large country park. Beyond Green proposes a low-carbon decentralised energy network and infrastructure that enables minimal water consumption. Broadland District Council's planning committee voted 14:1 in favour of the proposals, which demonstrates how convincingly Beyond Green presented the need for sustainable living and their commitment to delivering it. Executive Chairman of Beyond Green, Jonathan Smales, said: "we've got to start making proper places again that let us live terrific lives with tiny environmental footprints".

After more than three years of survey work, report writing and planning the mitigation for protected species on their largest mixed-use project to date, The

Ecology Consultancy's ecologists were able to produce a robust chapter for the Environmental Statement. Natural England commented that "the Environmental Statement covers all the ecological aspects we would expect with an excellent level of detail. We welcome the aspiration for a generous level of green infrastructure across the site".



Overlooked on-street parking Photo: Beyond Green

Ecology project manager, Dr Graham Hopkins, said: "As the only ecologists involved with the scheme we felt a great responsibility towards our client and I must thank our team at The Ecology Consultancy, for their commitment to undertaking their work to the highest of standards." The project work started with a scoping assessment which was followed by detailed surveys for all the important groups from habitats and bats to arable mosses and invertebrates. In the years since this fieldwork, The Ecology Consultancy has worked to

reduce the impact of the project on ecology. As well as formal meetings with stakeholders and consultees, we have attended public consultations, fetes and special events in Norwich.

The masterplan includes dark corridors to allow bats to travel across the site, a major new country park creating replacement habitat and the restoration of an historic park from arable cropland. Our designs met and often exceeded the latest Bat Conservation Trust recommendations. The wider green infrastructure design includes street trees, pocket parks, green façades and roofs, allotments and sports fields.

Beyond Green acknowledged that The Ecology Consultancy's high-quality submission helped significantly to inform and speed up the time required for the Habitats Regulations Assessment (HRA), particularly with respect to recreation and The Broads. Unusually for a development of this size, there were no objections on ecological grounds.

"It's fair to say I'm a bit pleased for Beyond Green" was Dr. Hopkins's first reaction on seeing the vote for approval. "I think we've helped make a little piece of history, with this scheme setting the benchmark in sustainability and reducing ecological impacts".

Working with designers

- putting nature back into development

The Ecology Consultancy is fast becoming a leader in the area of green infrastructure, providing technical advice on a wide range of environmental enhancements, from design through to implementation and management.

Skillful use of materials, colour schemes, and an awareness of branding and lighting are some of the design aspects that we consider to ensure our recommendations are aesthetically pleasing and ecologically effective. In this context, we're able to advise on the creation of biodiverse green roofs, WSUD features and wildlife planting for BREEAM and CfSH Assessments.

We work with a growing number of specialist contractors, including our sister company the Green Roof Consultancy, who ensure our recommendations are implemented and maintained to the highest standard.

Our recommendations are always tailored to the site and client's needs, ensuring delivery of ecological solutions which are sustainable and sensitive to the design of the new development.

All too often our ecologists see provision of ecological enhancements in a scheme, yet note that these well-intentioned measures have not been implemented to maximise their effectiveness. For example, bird and bat boxes are simple ways to offer ecological enhancement, but they are frequently fixed to buildings in a manner that looks incongruous, in some cases not only spoiling the appearance of a new building, but failing on ecological grounds because the placement is unsuitable for the target species.

By working with the project design team from early on in the process, our

ecologists help our clients avoid such mistakes. This ensures ecological features, large or small, are integrated into the development, taking into consideration the local landscape character and the requirements of the species concerned, while fitting aesthetically with the design.



Shoreham, Sussex – swift boxes
Photo: Ben Kimpton

Imaginative and cost-effective bat surveys

Bats are an elusive species with the majority of our UK species roosting in crevices in trees and buildings, where they can be overlooked. To survey effectively, we have a number of techniques at our disposal as well as a pragmatic and imaginative approach.

Knowing that our clients have budget and time constraints we seek practical solutions that take these firmly into account. Here, we summarise three case studies where our approaches saved time and costs for our clients and solved specific problems which were holding up their developments.

Photo: Hugh Clark



CASE STUDY 1

Bespoke survey design to tackle specific concern

Client: Linden Homes

Project: Redevelopment of the site at 281 King Street, Hammersmith, London.

Problem: Local residents protesting against the development on the basis that bats foraging and commuting over the buildings would be adversely impacted by the proposals and associated lighting. The area is residential with nearby Ravenscourt Park and the River Thames providing a good network of foraging habitat for bats linking to the London Wetlands Centre and Chiswick Park. The protests were repeated during public consultations where residents opposed the proposals.

Solution: In addition to the standard bat surveys for this site, required to determine if bats were roosting within these buildings, Sarah Nicholas at The Ecology Consultancy designed a bespoke survey to specifically address residents' concerns. She positioned automated bat detectors on the roof between the buildings, setting them to record bat data at key times over each night for one month. The set up and collection of the equipment coincided with the bat emergence surveys to minimise costs and the data recorded

revealed the levels of foraging and commuting bat activity within the site. The existing light levels within the site were recorded during the bat surveys.

Outcome: Bat emergence surveys found roosting bats to be likely absent. Automated detectors recorded four bat species (Leisler's bat, noctule, common pipistrelle and soprano pipistrelle) using the site but at low levels, showing that the site is of low value to commuting and foraging bats. The existing light levels of street and security lighting were considered high, so simple and achievable lighting mitigation measures were provided in the report. The Ecology Consultancy concluded that the development proposals would not have an adverse impact on bats and the



Lighting & bats Photos: Sarah Nicholas

bespoke survey design demonstrated that the specific concerns of those opposing the development were unfounded. This approach addressed the requirements of the LPA and provided our client with a cost-effective analysis.



Aerial survey Photo: Andy White

CASE STUDY 2

In-house skills provide clients with survey options to fit timescales and budgets

Client: Various

Project: Any project where trees are present

Problem: On a development site where trees are identified as having potential to support roosting bats, follow up bat surveys are usually required. Typically, these are bat emergence surveys, requiring at least two surveyors monitoring the tree(s) at least once, at dusk or dawn, to determine whether roosting bats are present or likely absent. Bat emergence surveys must be carried out when bats are active, between May and August, in good weather conditions.

Trees requiring works or felling as part of a development may also need further bat surveys outside of the survey season which could cause costly delays for projects.

Solution: In addition to the standard emergence survey approach, The Ecology Consultancy can also offer climbed inspections of trees. We have several in-house qualified climbers (also qualified in aerial rescue, as required for H&S) who are also bat ecologists licensed to use endoscopes, meaning that crevices and cavities can be thoroughly investigated. These inspections can be carried out at any time of year and generally cost considerably less than emergence surveys, offering a more flexible approach that can fit in with our clients' timescales and budgets.

CASE STUDY 3

Pragmatic solutions to save time and money

Client: Dan Marshall, Chairman, Battersea Ironsides Rugby Football Club, London.

Project: An amateur London rugby club that had been working with Wandsworth Council for some time, on the possibility of training under floodlights on common land, on Tuesday and Thursday evenings in the coming winter months.

Problem: One of the major obstacles was the potential impact of sports lighting on local wildlife. Before the application could proceed, the council's Biodiversity Officer required a full bat survey which included two activity transect surveys, sonogram analysis of bat calls and a full bat assessment of possible roosting habitats in a scout hut situated on the common land. This work would cost the club over £2500, with no guarantee of a successful outcome.

Setting the scene: Principal Ecologist, Dr Sarah Yarwood-Lovett advised that some bat species are deterred by lighting, which can force them to avoid foraging sites, hence lighting habitats used by bats is a concern for LPAs. In this case, the club needed to use artificial lights from September to March. Bats hibernate from around November until the end of February, so lighting impacts on bats over this period would in fact be minimal. However, in September and October bats are foraging to fatten up, so we needed to determine the extent of impacts from the proposed lighting at this key time.



Scrum Photo: Katy Thomas

Solution: Dan Marshall says, "Dr Sarah Yarwood-Lovett at The Ecology Consultancy recognised our concerns about an expensive and potentially unnecessary survey and was extremely responsive from day one. She took a common sense approach, seeking a more efficient and economical way to assess the impact of proposed floodlights on local bats. Sarah concluded that the bi-weekly use of lights during winter months would have limited impact on bat activity. In addition, she spoke with our floodlight supplier to understand the precise specification of the lights we'd be using to make sure they would have limited biodiversity impact. Sarah went on to write a letter of opinion about the (limited) impact of our lights, which was sufficient to allay the council's concerns and allow us to proceed with our application."

Outcome: The Ecology Consultancy was able to determine from the specifications that the lighting would fulfil appropriate and recommended mitigation measures for light-sensitive bat species, and that impacts could be further controlled through infrequent and time-bound use of lights. We prepared a formal assessment of the lighting for the council, which confirmed a lighting mitigation scheme was sufficient, in lieu of surveys plus mitigation. The client was saved a hefty bill! Dan concluded, "This was a common sense, speedy and efficient approach to an ecology/planning issue and our rugby club is extremely grateful."



Turbine Photo: iStockphoto

Wind power

Our Principal Ecologist Dr Rachel Saunders addressed a session at the RenewableUK Annual Conference in November.

Wind energy has an important part to play in the future of the UK economy and the siting of wind turbines can potentially impact upon sensitive landscapes, habitats and local wildlife – but that doesn't have to be the case. A number of delegates at the Small and Medium Wind Conference, which ran parallel with the main Renewables event, raised questions in the panel discussion following Rachel's talk all relating to wildlife considerations.

The RenewableUK Annual Conference provided a great opportunity for Rachel to network with companies in the small wind sector and to promote our services, newsletters and our new Insight guide on wind farms and wildlife. For copies of these please contact our East Anglia office on 01603 628408, or download from our website - www.ecologyconsultancy.co.uk

Expert badger mitigation at sensitive sites



Artificial sett Photo: Toni Harrington

At one London site, The Ecology Consultancy helped a client resolve the issue of badgers possibly digging under a scheduled monument and car park and posing a health and safety risk. In order to understand the extent of the badger tunnelling within this sensitive area, we worked with specialists to conduct a Ground Probing Radar (GPR) survey. Such surveys can determine the presence of (possible) voids and in this case we were able to interpret the data with sufficient confidence to establish that badgers were not causing damage.

As well as using radar, we also use camera traps to supplement our survey data. This is particularly useful when sett closures are required and accurate data from rigorous monitoring is needed to support the licensing procedure with Natural England.

Conventional monitoring surveys rely on ecologists spotting field signs such as footprints, hairs, signs of recent digging and the movement of sticks placed strategically outside sett entrances. While these methods are tried and tested, field signs can sometimes be missed and can be less evident in certain environments. Holes can be used by badgers, foxes or other mammals and it can be difficult to distinguish which from field signs alone. It is an important distinction due to the differing levels of protection afforded to each species.

In order to demonstrate to Natural England that one sett within a proposed development site could be closed, so that the development could proceed, we had to show that a replacement sett was being used by the badgers. Conventional monitoring found badger activity but could not confirm use of the replacement sett. So a camera

trap was set up to monitor the sett's four entrances. After leaving the camera in situ for one night, footage was captured that conclusively proved that the badgers were using the artificial sett, enabling the licence to be granted and the development to proceed.



Camera traps can provide stronger evidence, in a shorter time and more economically than the survey of field signs alone and can remove the uncertainty in identification of such signs where they are sparse or unclear. The use of cameras can also, crucially, guarantee that the badgers are actually using the sett, which is key in mitigation design.

The Ecology Consultancy Professional Series 2014: Applied Training for Ecologists

February 10	An Introduction to Bat Surveys, London, Dr Sarah Yarwood-Lovett <i>Principal Ecologist</i>
March 28	Vegetative identification of grasses, Lewes, Alex Prendergast <i>Ecologist</i>
April 25	Badgers and mitigation, London, Toni Harrington <i>Senior Ecologist</i>, Sasha Dodsworth <i>Ecologist</i>
May 7	Legislation Masterclass, London, Penny Simpson <i>Environmental Lawyer</i>
June 11	Preliminary Ecological Appraisal, An Applied Approach, Lewes, Giles Coe <i>Senior Ecologist</i>, Ben Kimpton <i>Senior Ecologist</i>
July 16	Habitat and Site Assessment for Invertebrates, Lewes, Graham Hopkins <i>Principal Ecologist</i>
August 28	Assessing sites for Hazel Dormouse, Lewes, Laurie Jackson <i>Ecologist</i>

The courses start in February in our London offices and then move to the South Coast as the weather improves so we can take advantage of the location of our Lewes office for field study. To sign up for these events, please contact Alex on enquiries@ecologyconsultancy.co.uk

The Ecology Consultancy is offering a free service until March 2014

We invite clients to allow us to visit sites where mitigation or enhancement measures have been implemented.* We offer a free single site visit to assess how successful the recommended measures have been and what measures are less effective and why.

This review will help us ensure that we are recommending mitigation that is proportionate, ecologically effective and good value for money for our clients.

*This does not include EPSM licences, for which monitoring is mandatory and carried out over a series of visits, as approved by Natural England (NE) at the time of granting the licence.

The Ecology Consultancy is pleased to be part of Temple Group



In December 2013 Temple Group acquired The Ecology Consultancy which is now a wholly-owned subsidiary of the Group.

The acquisition builds on a 15-year close working relationship between John Newton, our MD, and Mark Southwood, MD of Temple. They have a long history of collaboration on successful projects starting with the Channel Tunnel Rail Link in the late 1990s. Recent examples of joint working include Airtrack, High Speed 2, Transport for London projects, and a number of sustainability programmes for infrastructure projects, renewable energy and residential and building developments.

Temple is a leading environment, planning and sustainability consultancy in the UK with a first class pedigree in delivering infrastructure and development projects. They fully share our ethos towards developing their staff and delivering value for clients.

The acquisition brings together two of the strongest and fastest growing independent environmental consultancies in the UK. It will expand the breadth of services within Temple's core competency of Environmental Impact Assessment, as well as extending its environment, planning and sustainability capabilities. Both companies believe that clients will benefit from increased project efficiency through closer integrated working across the teams, added project value through combined expert insight, and joint briefings.



Mark Southwood & John Newton *Photo: Alex Woodcraft*

The Ecology Consultancy will keep its separate market-leading brand and identity, and will continue to be managed and led by John Newton. John said, "For us this is an important stage in The Ecology Consultancy's evolution and, from a position of financial strength, we can confidently build our next chapter. This deal offers real opportunity to the

senior team to help shape the business strategy so as to realise the Temple advantage in full and continue to succeed in the environmental market. Temple brings project management skills and a specialist capability in Environmental Impact Assessment and town planning, whilst we will strengthen the biodiversity offer in their sustainability services."

Find out more about Temple Group www.templegroup.co.uk/pages/index.cfm

Revamped, client-friendly website!

We have launched a new website that will be easier to navigate and find what you are looking for. Packed with essential information about our comprehensive ecology services, case-studies that demonstrate our efficiency, plus more accessible regional details, we hope you will take a look!

www.ecologyconsultancy.co.uk



New address

Our Sussex office has moved to spacious new premises offering meeting room facilities (please note new address below).

Experience and quality that make a difference

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You have received this Briefing as a valued contact and we hope you have found it informative. If you would like others to receive a copy, or information on our services, please write to Jane Kendall, The Ecology Consultancy, Beckett House 72 Borough High Street, London SE1 1XF, or email enquiries@ecologyconsultancy.co.uk, with your request.