



Developers' Guide: The Impact of Ecology on Planning & Development



August 2019

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Who We Are

The Syntegra Group are a specialist planning & multi-disciplinary engineering design consultancy. Launched in 2008, we have a proven track record of providing innovative and commercially viable sustainability and energy efficiency solutions to the built environment across the United Kingdom and internationally.

2019 marks our 11th year of trading and the company is recognised by Goldman Sachs as a fast growth company - currently employing around 35 members of full time staff at our locations in London, Reading, Tonbridge, Bristol and Leeds. We are members of Construction-line, ANC, ATTMA, CIBSE, Energy Institute and the UK Green Building Council.

Our experience within the built environment and our contribution to many nationally-recognised forward thinking developments has led to over 26 awards and accolades, including:

- Selected as finalists in the Constructing Excellence SECBE Awards 2019
- Shortlist RIBA Stirling Award 2017 – Spruce Apartments
- Winner AJ Retrofit Awards 2017 – Print House Works
- Energy Consultant of the Year – Energy Efficiency Homes 2017
- Shortlist RIBA awards 2016 and Winner Hackney Design Awards 2016
- Awarded ‘Sustainability Company of the year’ by the Thames Valley Chamber of Commerce in 2014
- Identified as a SME growth company by Goldman Sachs and awarded strategic support under the 10ksb programme (2013 – ongoing)
- Winner of the Green Apple built environment awards 2013 • Winner of the Smarta 100 Awards 2013

 <p>To date we have saved our clients £125m+</p>	 <p>Our team is currently working on 100+ live projects!</p>	 <p>50% of our team have a post graduate degree</p>
 <p>Syntegra offers in excess of 55 services</p>	 <p>Live UK Project Value of £3 Billion GDV</p>	 <p>Live Overseas Project Value of £100 Million</p>

CIEEM Procedures

Before any building project is even contemplated, developers must first take ecological considerations into account if they are to avoid prosecution and potentially significant fines – or even a term of imprisonment.

Legal protection is afforded to certain habitats, species and sites and it is vital that checks are carried out on a potential development site prior to planning application submission so that the necessary protocols can be followed to ensure compliance with the law.

Guidelines from the Chartered Institute of Ecology and Environmental Management (CIEEM) describe the process which developers need to undertake to comply.¹

The first step is to conduct a Preliminary Ecological Appraisal (PEA) to assess the ecological features of a proposed site and its vicinity.

The PEA will identify:

- Any ecological constraints in relation to the site and proposed project
- Any mitigation measures required
- Any additional surveys which will need to be carried out
- Opportunities offered by the project to enhance the ecology of the site

As an initial desktop and walk through exercise, it is usually used to inform an Ecological Impact Assessment (EclIA), described by the CIEEM as ‘the process of identifying, quantifying and evaluating the potential effects of development-related or other proposed actions on habitats, species and ecosystems’.

It can also be used to inform an Environmental Impact Assessment and sustainability ratings for BREEAM or an assessment of likely compliance with statutory obligations for developments which do not require planning consent, or developments proceeding under Permitted Development Rights or other consented operations.

Any form of ecological assessment, and the surveys which underpin them, should be undertaken by qualified and experienced professionals with an understanding of nature conservation legislation and planning, which is where Syntegra can assist.

A PEA will include detailed maps of the habitats on site, an assessment of the possible presence of protected or priority species and the likely importance of habitat features present on site for them.

Species include:

- Plants
- Fungi
- Terrestrial and aquatic invertebrates
- Fish

¹ CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

- Amphibians (including both breeding and terrestrial habitat)
- Reptiles
- Breeding, wintering and migratory birds
- Bats (including potential roost sites, and foraging and commuting habitats/features)
- Other protected or priority mammal species, as relevant.

Recording of any incidental sightings of priority or protected species, or field signs of such species, must be logged.

All necessary survey information should be submitted with the planning application so that it can be taken into account prior to the consideration of planning permission.

Where an ecological report is required to accompany a planning application, the appropriate report is an EcIA Report (or an Ecology/Biodiversity Chapter of an Environmental Impact Assessment Report for an EIA project).

Under normal circumstances it is not appropriate to submit a PEA report (PEAR) as part of a planning application, because the scope of a PEAR is unlikely to fully meet planning authority requirements in respect of biodiversity policy and implications for protected species, says the CIEEM. ‘This is because a PEAR is normally written to advise a client of ecological constraints and opportunities to inform their design options, likely mitigation requirements, and the need for further surveys. It therefore lacks a detailed assessment of ecological effects, and commitment to mitigation; the planning authority is therefore unlikely to have adequate information to enable the decision maker to determine the application lawfully. A PEAR may, however, be submitted as an appendix to an EcIA Report.’ Full details of the CIEEM guidelines are available [here](#).

In recognition of the significance of the ecological impact on sustainable development, Director of Ecology Services, Trish Holden, oversees this critical area of business and liaises closely with clients and colleagues across all Syntegra’s service disciplines to ensure ecology advice is understood and followed throughout the lifetime of projects.

Complying with ecology laws and during project planning stages and biodiversity net gain are some of the topics featured in our advisory pieces which we recommend developers study prior to submitting their proposals.

Below is a selection of articles featured on the [Syntegra Group](#) website focusing on the ecological impact of the built environment and how builders and designers can avoid costly pitfalls.

Planning Applications Face Delay if Bat Surveys not Completed Promptly

A key window of opportunity for planning applications is about to close as the bat survey season draws to an end – meaning potential delays of up to a year for construction projects.

Syntegra prides itself on a quick turnaround for all ecological surveys but we are bound by law to leave bats in peace between the end of September and early May – so our team can't help you gather the required evidence for a successful planning application.

If you need a bat survey on your site, it's not too late to get in touch – or if you know you're going to be seeking approval for a planning application next year, get in touch early to kickstart the process at the earliest possible opportunity.

But given the fact no work can be carried out on sites where bats might be roosting, builders would do well to get in touch for a bat assessment ASAP to avoid unnecessary delays – or hefty fines if they go ahead with their work without the relevant surveys being conducted.

Our Director of Ecology Services, Trish Holden, answers a few critical questions about the presence of bats on potential building sites:



Which structures need a bat survey?

- It should be assumed that all structures require a bat survey to rule out the presence of a bat roost. Any proposed development which involves building works, such as demolition, building extension or refurbishment, barn conversions etc.

What does a bat survey involve?

- Initial Survey: Daytime bat inspection (aka preliminary roost assessment) consists of both an interior / exterior inspection
- However a daytime bat survey can't always determine presence or absence (crevice bats are hard to detect!).

How do you grade a bat survey?

- Buildings/trees given potential rating: low, moderate, high or confirmed (i.e. droppings found, bats seen)

When are echolocation surveys carried out?

- If echolocation surveys are necessary, they must be carried out between May to August but depending on roost type it could be carried out in April and September.

How many visits are required by ecology experts?

- Bat Conservation Trust Survey Guidelines ² say a minimum of three surveys (2 dusks, 1 dawn, about two hours duration) are required to indicate absence from a suitable structure – this is for buildings with high potential and or confirmed presence

² <https://www.bats.org.uk/>

- Hedgerows, woodland, fields might also require an activity survey to show how the development might impact foraging / commuting bats

What does a species survey reveal?

- Phase II or Species Surveys are aimed at identifying the presence of a protected or priority species on a site and to provide evidence of: the population size, how the species uses the site, what time of year it is present and how the proposed development will impact on the protected species.

Who says a bat survey is necessary?

- The LPA has a statutory duty to consider the conservation, protection and enhancement of biodiversity when determining a planning application. The presence of European Protected Species, UK Protected Species, internationally, nationally or locally designated sites and priority habitats and species on or adjacent to a development site are material considerations within the planning process. The LPA must also consider the development in relation to its positive or negative impacts on environmental networks and priority landscape-scale areas for biodiversity.
- ODPM Government Circular 06/2005: Biodiversity and Geological Conservation –Statutory Obligations and their Impact within the Planning System which states that: ‘It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted.’

Which legislation is relevant for bats and roosts?

- In England and Wales, the relevant legislation is the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000; the Natural Environment and Rural Communities Act (NERC, 2006); and by the Conservation of Habitats and Species Regulations (2017).

How does the law protect bats?

- You’re committing a criminal offence if you do any of the following:
 1. Deliberately capture, injure or kill a bat
 2. Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats
 3. Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time)
 4. Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat
 5. Intentionally or recklessly obstruct access to a bat roost

Who do you carry out surveys for?

- So far this season, we’ve carried out surveys for schools, care homes, factories, hotels, industrial estates, farms, garages and private addresses up and down the country.

What happens if bats are roosting on a potential construction site?

- If roosts are identified, the ecologist will work with the developer, under approval by a granted EPS Licence by Natural England, to provide alternative roosting sites nearby or within the new building project for example leaving cement out under ridge tiles providing a route to a void within roof spaces.

- European Protected Species Licenses are required if the works will damage/destroy the roost. The EPSL is applied for after planning permission is granted. Natural England will grant EPSL as long as it meets the 3 tests under the Habitats Regulations.
- If a roost has to be damaged/destroyed, depending on the type, can only happen from September 1st when the bats should have left, and a replacement one has to be ready for bats to use by the following April when they might return.

Why do bats matter?

- Bats play an important role in many environments controlling pests by eating insects. Pipistrelles, for example, can eat upwards of 3,000 insects in a night – including mayflies, lacewings, small moths, midges, caddis flies and mosquitoes.
- While bats can provide a valuable service for agriculture, some agricultural practices can have a detrimental impact on bats. Increased use of pesticides may mean that bats go hungry from the lack of insect prey. The destruction of hedgerows and woods in farmland is also concerning, as bats rely on these features for roosting, traversing grounds/commuting and foraging grounds and getting around.

Table detailing the legal and conservation status of all UK bats (BCT)

Having bats roosting within a building does not necessarily mean that work cannot be carried out but attention will need to be paid to the project timescales and types of materials used so the site can be used by humans and bats alike. A suitable outcome working to find the best solution for the bats utilising the site, and the proposals, is always sought by planners – with the ecological survey input – liaising with developers.

For details on the assistance our ecological team can provide at Syntegra for a bat survey, please get in touch today or visit <https://syntegragroup.com/m-and-e/services/specialist-planningreports/ecology-habitat-survey-report/> for more information about our service and the cost of a bat survey.

Ecology Advice after Huge Fine for Developers who Destroyed Bat Roost

Clients have been warned to consider ecology in the initial stages of their planning proposals after a huge fine was imposed on a development company for the illegal destruction of a building where protected bats were known to roost.



Landrose Developments was fined £18,820 at Brent Magistrates' Court after pleading guilty to destroying the breeding site / resting place of a European Protected Species (EPS), namely Pipistrelle Bat

The court heard how the company was involved in the demolition / re-development of a detached bungalow in Stanmore in October 2016.

In 2011, plans were submitted to demolish and redevelop the property. A subsequent ecological survey of the premises revealed the presence of Pipistrelle bats within the property.

The presence of the bats meant that the building could not be demolished without a European Protected Species License and appropriate mitigation in place. The Council imposed a condition stipulating that ecological features should be maintained within the premises.

It was raised to the owner of the property that demolition without an EPSL or appropriate mitigation would destroy a roost and constitute an offence under the Conservation of Species and Habitat Regulations.

Yet, despite being aware of the existence of two bats at the location, the property was demolished under the authority of Landrose Developments in October 2016 without any measures in place to protect the bats.

Police were alerted to the demolition of the property in July 2017 and an investigation commenced by the Met's Wildlife Crime Unit and Harrow's designated Wildlife Crime Officer.

The development company was charged with destroying a bat roost on 12 September 2018 after attending a voluntary interview at Colindale Police Station.

DC Garry Redshaw, who led the investigation, said: "All 18 UK species of bats are European Protected Species (EPS) and are protected under the Conservation of Species and Habitats Regulations. This makes it an offence to capture, injure, kill or disturb an EPS or destroy their breeding site or resting place.

"The development company was clearly aware of the bats existence but proceeded to destroy their resting place anyway."

DC Sarah Bailey from the Met's Wildlife Crime Unit added: "Although this is only the second ever Met case of its kind, sadly bat roosts are destroyed every year and go unreported to police. I would urge anyone who is aware of this criminality taking place, to report it to police."

Syntegra's Director of Ecology Services, Trish Holden, said: 'Developers should always have a preliminary ecological appraisal and/or roost assessment on buildings, as this can ensure the avoidance of costly delays and the surveys will help to inform the mitigation measures and then, if necessary, seek further surveys to inform the EPS licence.'

Developers Urged to Consider Impacts on Wildlife

Developers have been warned to take more care to protect wildlife habitats when undertaking construction projects following concerns raised over netting being placed over trees and hedges.



In a letter to developers, Communities Secretary James Brokenshire MP reminded developers of their legal obligations to consider the impact of their work on wildlife and take action to protect habitats where necessary.

He advised them that birds are protected under the Wildlife Countryside Act 1981, and that mitigation plans need to show how developers will avoid or manage any negative effects on protected species during their work.

Netting is now frequently placed over trees and hedgerows, unnecessarily enforcing a trap to wildlife.

If developers breach their obligations, the Secretary of State said he would not rule out further action to protect the UK's ecological system.

Developers will be expected to deliver biodiversity net gain through the forthcoming Environment Bill, meaning habitats for wildlife must be left in a measurably better state than they were before any development work started.

Mr Brokenshire said: 'Whilst building new homes is vital, we must take every care to avoid unnecessary loss of habitats that provide much-needed space for nature, including birds.'

'Developments should enhance natural environments, not destroy them. Netting trees and hedgerows is only likely to be appropriate where it is genuinely needed to protect birds from harm during development.'

'I hope developers will take these words on board and play their full role to make sure we can deliver new communities in an environmentally sustainable way.'

Martin Harper, the RSPB's director for conservation, added: 'We cannot keep trying to squeeze nature into smaller and smaller spaces or demand that wildlife fits in with our plans.'

'Across the UK wildlife is vanishing at an alarming rate, and our planning system must play a vital role in not just reversing this decline but helping nature to recover.'

'Tree and hedge removal should be completed outside of nesting season. However, if there is absolutely no alternative, then netting must be used sparingly in line with the legal duties and responsibilities on developers, including regular checks to ensure wildlife isn't getting trapped, injured or worse.'

Natural England said: 'Where developers or local authorities feel they have no other options but to use netting we would always advise they follow best practice, including use of appropriate material to avoid entanglement. This should also be properly maintained and monitored and use is kept to an absolute minimum, both in terms of time and area covered.'

Syntegra's Director of Ecology Services, Trish Holden, welcomed the Secretary of State's intervention and endorse Natural England's comments.

She said: 'All too often we see developers failing to take these responsibilities seriously and flouting their obligations. It is vital that we all do everything we can to protect wildlife habitats and focus on building the most sustainable developments possible at this critical time for our environment.

'We still need to understand a site's overall value to wildlife and mitigation must be appropriate and if netting is to be used as a last resort then the surveys carried out will ensure that the netting used is appropriate for the site.

'I appreciate some of the regulations around this type of work can be easily overlooked when drawing up plans for a development so we advise clients to consult with us at the earliest stage possible to avoid any pitfalls and ensure their application does not fall foul of any laws.'

How to Avoid a Tiny Creature Putting the Brakes on your Building Development



While not always at the top of a developer’s mind when renovating a site, in today’s planning applications, bats and other rare or endangered species are a material consideration.

Criminal prosecutions can be brought against builders who ignore the creatures’ presence and destroy roosts with unlimited fines and/or six months in prison the punishments available to the courts.

And a number of strict criteria set out in the [Bat Conservation Trust’s guidelines](#) have to be met before work can continue on a site bats are known to inhabit.

This time of year is crucial in terms of checking for bat roosts as surveys on potential sites can only be conducted between May and August to check for what are called maternity roosts.

Two dusk and one dawn survey have to be conducted, ideally two to three weeks apart, in suitable weather and this is required when a structure has confirmed presence of bats or of high potential. These surveys will help to determine if a roost is active or present, determine the species, numbers and roost type.

If evidence is uncovered, a mitigation plan is written by the appointed ecologist that will need to then be approved by the council and then an EPSL is applied for after planning permission is obtained. The end goal is to preserve or replace the roost as part of the construction plan.

Director of Ecology Services, Trish Holden, said: ‘There are no shortcuts. The council needs to know if there’s a roost, all conditions of a mitigation plan need to be disclosed before a licence is granted and the licenced ecologist has to be on site when a roost is damaged/destroyed.

If a roost is found, for a hypothetical example at the rear of a building, but work is to only be carried out on the front and it was determined by the further surveys and the ecologist has the overall opinion that the works will not cause an offence with precautionary measures in place then to avoid disturbing the bats, builders can work outside times when the bats will be present and under a watching brief.’

If a roost has to be destroyed, depending on the type it can only happen from September 1st, and often prior to the damage or destruction of the roost, a replacement roost has to be completed and also ready for bats to use by the following April.

Ideally, the new one should be ready before the original is destroyed.

A ridge roost, used by the Pipistrelle breed, is one around the chimney area of a roof or under ridge tiles where they work away the cement.

A replacement crevice roost for an example can be constructed by leaving cement out from under tiles extending along the ridge. The cavity used by individuals will be between felt and tiles, and access will be by use of bat access tiles or other acceptable gaps or lifts. Another example for void species such as horse-shoe bats or long-eared bats are extensive spaces that ideally are 2.5 metres in height, with widths and heights that range from over 5 metres, use of non-trussed beam design, and allows for individuals to use the void, often these are accessed by purpose made points within the ridge space, roof space or within a gable end . Bitumen not breathable membranes must be used with replacement roost spaces.

Trish said: ‘Part of any planning application is always around ecology and bats are protected under the all bat species and their roosts are legally protected, by both domestic and international legislation

‘During the planning application process we look at all habitats and look for signs or potential for notable species and protected species and advise if the site could host them.’

The overall aim of the ecology surveys on site is to determine the potential or the confirmed presence for protected and notable species. Often the preliminary study is followed on by further survey, known as Phase II Surveys, that will give greater detail on presence or likely absence, numbers, and how the site is being used.

Hedgerows warning over biodiversity threat

Landowners have been warned of the threat to biodiversity by mismanaging their hedgerows.

Syntegra's Director of Ecology Services, Trish Holden, called for rotational cutting of hedgerows and tree lines outside of the bird nesting season to help protect valuable wildlife.

She said: 'Most landowners don't realise how important hedgerows and tree lines are for bats (and of course other protected species like hedgehogs) and changes to height/density can cause both direct and indirect impacts on the species that are dependent on them, especially for bats as they use these not just for foraging but to navigate across the landscape.'

'I always recommend that clients undertake rotational cutting outside of the nesting bird season (March to mid-September), infill any gaps and aim to maintain heights of at least 3m.'

Her comments follow publication of a study on agri-environment schemes and their effect on bats and their insect prey.

Research showed that keeping some hedgerows untrimmed for up to 10 years would 'enhance bat species richness and insect family diversity.'

The research was published in the Journal of Applied Ecology: ***Managing hedgerows for nocturnal wildlife: do bats and their insect prey benefit from targeted agri-environment schemes?***

<https://besjournals.onlinelibrary.wiley.com/doi/abs/10.1111/1365-2664.13412> and a summary appears below:

Hedgerows are an extremely important habitat feature for bats in the UK as they provide food, shelter and valuable landmarks for their orientation. However, little is known about whether changes in the management of hedgerows could make them even more beneficial to bats and their insect prey. For instance, specific agri-environment schemes, designed to promote biodiversity in farmland, have encouraged farmers to trim hedgerows no more than once every three years to enhance populations of the greater horseshoe bat – a species of major conservation concern.

In this study, researchers investigated whether delayed hedgerow trimming affected the activity and diversity of bats and insect prey within farms in Southwest England. Their results showed that the greater horseshoe bat as well as other non-targeted species including the lesser horseshoe and long eared bats all benefit from a delayed trimming regime. The abundance of insect prey was also enhanced suggesting that untrimmed hedgerows may harbour more prey. Untrimmed hedgerows also had a more prominent and complex structure than those trimmed yearly, meaning they could be better landmarks for commuting and foraging bats. While the less severe trimming regime prescribed by previous and current AESs in England encourages farmers to trim hedgerows only one year in three, our study largely supports the longer term benefits of non-trimming on bats and their insect prey. Keeping some hedgerows untrimmed for up to 10 years would enhance bat species richness and insect family diversity. Overall, this study shines a light on the success of targeted agri-environment schemes for promoting some of the most threatened bat species in Western Europe".



Biodiversity Net Gain Guidance Launched



Development plans are set to include detailed calculations on the biodiversity net gain of their projects in a bid to reverse losses of natural habitats from previous construction schemes.

Industry associations have teamed up to produce guidance on the scheme first launched by DEFRA to improve provision of natural habitats for species potentially displaced by building works.

The Chartered Institute of Ecology and Environmental Management (CIEEM), Construction Industry Research and Information Association (CIRIA) and Institute of Environmental Management and Assessment (IEMA) have stepped in to promote the net gain approach and

councils are expected to demand plans include calculations according to an agreed matrix showing a positive or negative indicator score against their proposals when they submit their applications.

Syntegra’s Director of Ecology Services, Trish Holden, said: ‘It’s likely these calculations on roll out will be aimed at the medium to large development schemes – some councils have already started asking for applications to include the audits which factors in newly created habitats and the overall risk of implementation.’

CIEEM President, Max Wade, said: “If biodiversity net gain is to be effective in reversing the catastrophic losses of biodiversity, it is essential that it is designed and delivered to a high standard. This new guidance will help all those keen to learn how to use this new approach and apply it to a range of different types of development.”

To download the new guidance documents please visit: www.cieem.net/biodiversity-net-gain

New Guidance on Lighting and its Effect on Bats

New guidance on lighting and its effect on bats has been welcomed by the Syntegra team as it offers advice to clients on sustainable development schemes.

The Institution of Lighting Professionals (ILP) has launched the latest practical guidance on considering the impact upon bats when designing lighting schemes.

They have worked with the Bat Conservation Trust (BCT) and ecological consultants to write the advice on how to avoid or reduce the harmful effects artificial lighting can have on bats and their habitats.



The note includes details about lighting levels and colour temperature impacts on different bat species.

International and domestic legislation protect all species of bat and their roost sites (whether bats are present at the time or not). It is illegal to kill, injure, capture, or cause disturbance that affects populations of bats, obstruct access to bat roosts, or damage or destroy bat roosts. The Wildlife and Countryside Act 1981 (as amended) protects all bats from ‘intentional’ or ‘reckless’ disturbance.

Lighting near a bat roost that causes disturbance and potential abandonment of the roost could also constitute an offence and having the guidance document available helps the Syntegra lighting and ecology teams produce appropriate solutions for clients as they develop sites where bats are roosting.

New development projects can reduce negative impacts of lighting on bats by utilising this guidance, said the ILP.

The Bat Conservation Trust said some species have been shown to be impacted by significantly lower lighting levels than others and certain colour temperature environments also play a factor in the level of impact. However, all bats require dark roosting areas, corridors through the landscape and habitats to feed.

The ILP said: ‘With the advent of modern LED technology, there is also more flexibility to control for light spill, choose wider colour temperature options and implement flexible lighting schemes unlike previous restrictions with sodium technology, for example.’

Jo Ferguson, Built Environment Officer at the Bat Conservation Trust, said: ‘This guidance note is an important step in raising awareness of the negative impacts of artificial lighting and how to avoid or reduce them. This work emphasises the importance of ecologists and lighting engineers collaborating to find a solution at the start of a project and to communicate throughout to find positive solutions for all concerned.’

Trish Holden, Syntegra’s Director of Ecology, said: ‘Many of our agents/clients, don’t understand the implications and impact that lighting could have on nocturnal species including bats.

‘Lighting can cause a disturbance to known bat roosts and constitute an offence; therefore, it is important to understand bats’ movements/ flight paths on and adjacent to sites.

'Understanding how a bat moves through a site must be thoroughly assessed before artificial lighting is changed or added. This guidance note will aid ecologists to design better mitigation measures for sites with known bat presence along with bats using the local landscape.'

A recent example in practice was a series of activity surveys on a proposed residential site near Bepton, West Sussex. The surveys found the treeline directly adjacent to the site was used as a traversing route for several Barbastelle Bats (Annex II species) with the individuals using the lane to commute from a likely roost site to foraging sites.

With this information to hand and the new guidelines, we were able to ensure that the flight paths remained undisturbed and no offence was committed. The final recommendations of the report had a dark corridor in place along the tree line boundary and the dwellings will require motion sensor lighting on short timers, hooded light fixtures, no use of UV lighting, low-level direct with no upward light spill to narrow spread, and use of LED luminaires.

Wildlife Enhancements in London’s Urban Jungles

By Trish Holden, Ecology Consultant

I often get clients and agents questioning the need for ecological enhancements when sites are based in built up urban areas – it’s a common misconception that these urban sprawled ‘concrete jungles’ surely must be dead zones with no value for wildlife.

After having many of these questions posed to me both on site and over email, I thought it best to explain why these areas are so important to the wildlife that are found in these built up areas and the ecological enhancements that are often used in urban areas.

Unknown to many, London has several priority habitats listed under the London Biodiversity Action Plan (BAP), that apply to urban areas: private gardens and wasteland, both of these habitats have action plans with specific targets and aims.

Often private gardens are subject to planning applications counter the loss of the habitat, compensation and enhancement measures are required for the variety of that are often utilising these spaces. Private gardens can wealth of habitats and resources for local wildlife including birds, bats and even hedgehogs. The aims under the Private Gardens Action Plan is to highlight and protect the overall resource for wildlife provided by private gardens in London; and to improve individual private gardens as habitat for a range of local wildlife.



and to species have a inverts,

The most common enhancement measures often recommended for these types of sites include:

- House sparrow bird boxes placed under eaves of buildings
- Swift bricks incorporated into building walls
- Bee bricks/Insect houses
- Wildlife planting with native species
- Bat boxes or bat roosting features incorporated into buildings
- Lighting Proposals to ensure low light spill/dark corridors
- Green roofs



Brownfield sites also commonly referred to or known as 'wasteland or previously developed land', can appear to have little ecological value but often provide a wealth of botanical interest along with a variety of species shelter sites, foraging sites and traversing grounds with links to the wider landscape. These sites in particular are often a haven for invertebrates which in turn provide important food sources for local birds and bats. Brownfield sites given their mosaic structures are also attractive to reptilian species.

Given the often complexity of these sites, further surveys are often required in order to ensure likely absence or confirmed presence of protected species. After these surveys are undertaken, site specific mitigation and compensation plans are complete. The most common enhancements measures recommended for brownfield sites often include:

- Corridors within boundaries of site to provide future shelter, traversing grounds and foraging areas for a variety of local species
- Brown and green roofs in place on buildings
- Insect/bug boxes
- Lighting proposals to include often dark corridors
- Log piles
- Nesting/roosting boxes and or incorporated into new building(s)

Brownfield and private gardens are often havens for a variety of species and without these areas having mitigation measures and or enhancements measures in place, the dependant species can have both indirect and direct impacts. Even if the original site did not meet the criteria for either of these priority habitats, landowners, developers, and/or agents can work together with their ecologist to promote and encourage a variety of wildlife enhancements, welcomed by councils in support of a planning application.

Full details of our ecological survey services are available here: <https://syntegragroup.com/m-ande/services/specialist-planning-reports/ecology-habitat-survey-report/>

Please contact us for advice on this critical area of sustainable development. We'd be delighted to work with you from the initial stages of your project to ensure it is as environmentally friendly as possible – and legal.

APPENDIX 1. FLOWCHART

