



Establishing a biodiversity baseline at a property involves input from a range of specialists during the process of undertaking an ecological survey.

Usually, the decision to establish a baseline will be instructed by an asset manager and coordinated by a property manager with support and input from a facilities manager.

Establishing a biodiversity baseline involves consideration of the following elements as part of undertaking an ecological survey:



1. UNDERSTANDING THE PURPOSE OF AN ECOLOGICAL SURVEY

Ecology surveys can help to inform asset and property managers about potential green space opportunities as well as provide information regarding the habitats and species that currently exist within an area.

Undertaking an ecological survey can contribute towards:

- Identifying existing habitats and species at the site.
- Identifying biodiversity risks.
- Providing asset managers with a map of existing green space assets and awareness of any constraints or enhancement opportunities.
- The design and incorporation of biodiversity risk management and enhancement measures.
- The design of future development or refurbishment works in a way that can control impacts on biodiversity or improve ecological conditions.
- Providing guidance on opportunities to protect and enhance ecological value within the site.

Where an asset does not have any existing green space, it is still important to carry out an ecology survey which may identify hidden risks, such as roosting bats, for example.



Identifying existing habitats and species



Identifying biodiversity risks



Providing a map of existing green space assets



Design of biodiversity risk management and enhancement



Design of future development to control impact or improve ecological conditions



Providing guidance to protect and enhance ecological value

2. COMMISSIONING A SURVEY

Ecological surveys should be undertaken by an appropriately experienced and suitably qualified ecologist. Surveyors should meet the competencies set out by the Chartered Institute of Ecology and Environmental Management and should hold the relevant species licence, where applicable, relating to the survey being carried out.

Ecology surveys are commonly valid for a period of twelve to twenty-four months depending on the type of survey and associated conditions. An ecologist can provide guidance in relation to the validity of each survey on a project specific basis.

When procuring ecological surveys, it is important that a property manager considers timings and access limitations. A suitably qualified ecologist will be able to advise on these.

- **Timing:** Surveys are timed according to seasonal variation, location and species being surveyed. For example, surveying for bat roosts can only take place from May to September.
- **Access:** Different survey types will require access to areas of the property or site. For example, existing trees, building facades or roofs that could provide opportunities for nesting and roosting.

3. IDENTIFYING THE REQUIRED SURVEY TYPE

When procuring ecological surveys, it is important to be aware of the different survey types that are available. A suitably qualified ecologist will be able to advise on these.

Example of ecological survey types include:

- **Extended Phase 1 Habitat Survey.** This includes a baseline assessment which determines the broad habitat types and existing green infrastructure within a site, and the potential protected/notable species present. This will inform which further surveys should also be carried out, for example:
 - Botanical surveys, including National Vegetation Classification (NVC).
 - Species specific surveys, such as those relating to bat, badger, dormouse, water vole, otter or other notable specific of reptile, bird, or invertebrate.
 - Invasive species assessments to determine the presence, distribution and any required mitigation measures or removal strategies.

4. REVIEWING RISK

Undertaking an ecological survey as part of establishing a biodiversity baseline can help to identify biodiversity risks, such as, for example, protected species or habitats already established on site. It is important that these risks are prepared for and managed.

To identify risk a property manager should:

- Review an ecology survey.
- Review a Biodiversity Action Plan (BAP) and existing environmental risk register.

Where a risk has been identified, a suitably qualified ecologist can help to plan required actions that will mitigate this risk. For example, this may involve planning demolition or tree removal works outside of birds nesting season.

5. MAPPING GREEN SPACE NEEDS

Once an ecology survey has been carried out, it is important to consider the green space needs. This should include consideration of how a property can support local biodiversity as well as various users.

Mapping stakeholders' needs is a useful exercise for property managers during the process of considering the installation and enhancement of green space. This can help to define the objectives of a green space project and ensure that benefits are optimised.

Mapping stakeholders' green space needs can inform initial design ideas and support the development of a business case for installation and on-going maintenance. A mapping exercise typically involves:

- Understanding the local needs and context.
- Understanding desires and needs of both property owner and the users of the site.
- Identifying whether collaboration opportunities exist with local stakeholders and initiatives beyond the site.