

+ ECOLOGY & BIODIVERSITY GROUP





Who are we?

We are

The Ecology & Biodiversity Group

which is a subgroup of SGP's Social Responsibility-Building group.





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What is our goal?



Our main Aims are:

I. To produce an informative document that raises awareness about biodiversity and ways to improve it effectively on construction projects.

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II. To create opportunities for collaborative efforts toward Biodiversity Net Gain irrespective of the sector.



Why we are doing this?

Although we are not ecologists, it's our social and environmental responsibility as Architects to be fully aware of Biodiversity Net Gain, our impact, and how we can positively influence and promote a better diverse environment.

How?

In our design considerations and when advising clients.



What defines and measures Biodiversity?

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Biodiversity

Is the key indicator of the health of an ecosystem.

A wide variety of species will cope better with threats than a limited number in large populations.





What do healthy ecosystems do?







What is Biodiversity Net Gain?

The Local Government Association defines Biodiversity Net Gain as an approach to development and/or land management that aims to leave the natural environment in a measurably better state than it was beforehand.

The 2021 Environment Act makes Biodiversity Net Gain (BNG) a condition of Planning Permission for all developers and other interested parties, requiring them to demonstrate how they will deliver a 10% improvement to the biodiversity value of any application site. As set out in the National Planning Policy Framework, applications are required before the commencement of any development, to measure the existing and proposed biodiversity values of their sites and show how they propose to increase it as a planning requirement.



What legislation governs the Biodiversity Net Gain?

The Environment Act 2021 (previously the Environment Act 1990) was made into law as the UK's new legislation to fill in the gap in environmental protection laws following the UK's exit from the European Union. The main function of this new legislation is to give a legal framework for environmental governance in the UK and to bring in measures to improve the environment concerning waste, resource efficiency, air quality, water, nature, biodiversity, and conservation.





How is Biodiversity measured?

Biodiversity can be measured using a variety of methods, including direct measures of the number and abundance of different species, as well as indirect measures of habitat diversity, genetic diversity, and ecosystem functioning. However, when it comes to assessing biodiversity net gain (or loss) associated with planned development or land changes, a specific approach is often used.

The Department for Environment, Food and Rural Affairs (DEFRA) has developed a biodiversity metric calculator for this purpose, which is used by ecologists, planners, developers, and other stakeholders. The biodiversity assessment of a potential development site is conducted based on plans for the development, and the resulting assessment is input into the biodiversity metric calculator. The calculator uses the information provided to determine an accurate score based on the ecological features present on the site, and this score represents the Biodiversity Net Gain (or loss) associated with the planned development.

The calculator takes into account various factors, including the types of habitat on the site, the size of the habitat parcels in hectares or kilometres (if linear such as rivers or hedgerows), whether the site is identified as a nature priority site, and the conditions of each habitat. Once the net gain (or loss) score has been calculated, stakeholders can use it to compare the pre-development measurement with the predicted post-development measurement and determine the impact on biodiversity. If necessary, on-site and off-site enhancements can be identified to eliminate any deficit and increase biodiversity by at least 10%. (https://arbtech.co.uk/biodiversity-net-gain-metric)









How can Architects improve biodiversity?

- 1. Thoughtful decision making regarding roofs, walls and landscape design.
- Carefully choosing materials used in construction- their sourcing, assembly and disposal.
- 3. Consider resources needed to sustain buildings in use (energy, water etc).
- 4. Avoiding adverse effects of buildings in terms of air and water pollution.
- 5. Conservation and rehabilitation of existing structures where possible.





What next?

This leaflet is a prelude to our main release, which will be coming out in 2023.



we care | we challenge | we deliver

