



BIODIVERSITY NET GAIN


Technical Advice Note

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I. Introduction

- 1.1 Biodiversity Net Gain is an approach to development and land management that aims to leave the natural environment in a measurably better state than it was beforehand.
- 1.2 Preserving and enhancing biodiversity in the development process is currently a consideration in the planning system that must be taken into account along with a number of other considerations. Given the seriousness of the issue of the continuing decline in Biodiversity in the UK and globally, this approach needs to change. It is no longer enough to identify protected species and aim to conserve designated sites through the development process.
- 1.3 Eastbourne Borough Council's Corporate Plan has made a clear commitment to enhancing biodiversity. As a result, biodiversity should be a priority in development as a general principle, and that open spaces, new buildings and development design should deliver biodiversity benefits throughout. The Council is considering how it can help to reverse the decline in biodiversity while continuing to provide the housing and commercial development necessary for our thriving communities' economic and social prosperity.
- 1.4 The UK government is also seeking to drive Nature Recovery through a number of measures including the mandating of measurable Biodiversity Net Gain in new development in the Environment Bill, which is likely to become law in 2021.
- 1.5 The continued protection of the habitats and species designated nationally and locally for their rarity or importance will not be compromised by this new approach.
- 1.6 The National Planning Policy Framework already requires local planning authorities to encourage developers to incorporate biodiversity improvements in and around developments, especially where this can secure measurable net gains for biodiversity.
- 1.7 This Technical Advice Note builds on the NPPF requirements and, in advance of biodiversity net gain being mandated through the Environment



Act, aims to provide developers and the public with guidance in relation to Eastbourne Borough Council's expectations of Biodiversity Net Gain by development in the area of the Borough that is outside of the South Downs National Park.


2. Biodiversity and Climate Change

- 2.1 It has been widely acknowledged that climate change and biodiversity are interconnected. Climate change has negative impacts on biodiversity and is likely to become one of the most significant drivers of biodiversity loss, and loss of biodiversity will have significant direct and indirect impacts on human life and human well-being. However, biodiversity also makes an important contribution to climate change mitigation and adaptation, which means that conserving and promoting biodiversity is critical in the fight against climate change.
- 2.2 The National Biodiversity Network's State of Nature 2019¹ report suggests that the UK is amongst the most nature-depleted countries in the world with 41% of our species in decline since 1970 and 15% threatened with extinction. The report highlights that the UK's wildlife continues to decline due to increased pollution, intensive farming methods and the expansion of the built environment all contributing to biodiversity loss, in addition to climate change.
- 2.3 On 10th July 2019, Eastbourne Borough Council declared a 'climate emergency' and committed to working in close partnership with local groups and stakeholders to deliver a carbon neutral town by 2030. Arresting biodiversity losses is inextricably tied to climate resilience, flooding impacts, the ability to sequester and store carbon, and achieving the desired sustainable, carbon neutral communities.

¹ <https://nbn.org.uk/stateofnature2019/>

3. Background


- 3.1 Planning Policy for biodiversity in the UK has been moving in recent years from simply ensuring the **conservation** of the natural world throughout the planning process, to a position where habitats and wildlife are instead **enhanced** by those very developments.
- 3.2 Section 40 of the Natural Environment and Rural Communities Act 2006 places a duty on local planning authorities to have regard, in the exercise of their functions, to the purpose of conserving biodiversity in making decisions on planning applications.
- 3.3 In 2018, the Department for Environment, Food and Rural Affairs (DEFRA) published '*A Green Future: Our 25 Year Plan to Improve the Environment*', which sets out the Government's aims to deliver cleaner air and water in cities and rural landscapes, protect threatened species and provide richer wildlife habitats, and generally "*leave the environment in a better state than we found it*".
- 3.4 As part of achieving this aim, it identifies the principle of embedding an 'environmental net gain' to put the environment at the heart of planning and development to create better places for people to live and work. The plan outlines the intention to strengthen the requirement for planning authorities to ensure environmental net gains across their areas, and consult on making this mandatory.
- 3.5 A Government consultation took place in late 2018 to seek views on proposals to make biodiversity net gain mandatory for developments when granting planning permission. The subsequent 2019 Spring Statement confirmed that the government will use the forthcoming Environment Bill to mandate biodiversity net gain for development in England to ensure that the delivery of much-needed infrastructure and housing is not at the expense of vital biodiversity.
- 3.6 An Environment Bill summer policy statement (July 2019) outlined that developers will be required to ensure habitats for wildlife are enhanced, with a minimum 10% increase in habitat value for wildlife compared with the pre-development baseline. It also identified exemptions for certain types of development, protections for 'irreplaceable habitats', and how net gain will be administered.

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- 3.7 On 30 January 2020, the Government reintroduced the Environment Bill following the general election. The Bill, which sets out the future governance framework for environmental law once the UK leaves the EU, is currently making its way through Parliament. It is proposed that the biodiversity net gain requirement will come in force after a two-year ‘transition period’ after the Bill receives royal assent.
- 3.8 In advance of the biodiversity net gain requirement coming into force, expected to be in 2022, Eastbourne Borough Council are setting out expectations for how biodiversity net gain should be taken into consideration in light of the current policy expectations. This is in addition to and not in place of site specific or species specific enhancement or mitigation that may be highlighted through a site specific Ecological Appraisal or any requirements of any other legislation.
- 3.9 This TAN should also be read in conjunction with the Eastbourne Biodiversity Strategy 2021-2025 available on the Council’s website².

4. Policy Context

- 4.1 The National Planning Policy Framework [NPPF] is a material consideration in the determination of planning applications.
- 4.2 The NPPF (2019) requires that, when determining planning applications, local planning authorities should apply the principle that ‘opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity’ (NPPF, para 175).
- 4.3 It further states that planning decisions should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity (NPPF, para 170).
- 4.4 There is further reference to net gains, with a requirement for planning policies and decisions to take opportunities to achieve net environmental

² <https://www.lewes-eastbourne.gov.uk/community/climate-change/>



gains – such as developments that would enable new habitat creation (NPPF, para 118).

- 4.5 Planning Practice Guidance³ confirms that planning conditions or obligations can be used to require that a planning permission provides for works that will measurably increase biodiversity.
- 4.6 The Eastbourne Core Strategy Local Plan was adopted in February 2013. It identifies biodiversity as a key spatial objective in protecting and enhancing the local distinctiveness of Eastbourne.
- 4.7 Core Policy D9: Natural Environment promotes effective conservation and enhancement of Eastbourne’s wildlife by identifying measures to preserve and enhance the geology, habitats and species of importance, and by ensuring that development seeks to enhance biodiversity through the inclusion of wildlife needs in design.
- 4.8 The Eastbourne Borough Plan (2001-2011) was adopted in 2003 and contains a number of saved policies which are still used to determine planning applications⁴. Policies NE22 and NE23 recognise the value of wildlife habitats and/or species of flora and fauna.

³ [Natural Environment - Paragraph: 023 Reference ID: 8-023-20190721](#)

⁴ The saved policies will remain as local policies until they are replaced by the new Local Plan.

5. Expectations for Biodiversity Net Gain in New Development

- 5.1 Once enacted, the Environment Bill will require developers to ensure habitats for wildlife are enhanced with a measurable increase in biodiversity.
- 5.2 Eastbourne Borough Council supports this approach, and in advance of biodiversity net gain becoming mandated, will ask that development proposals incorporate Biodiversity Net Gain principles and provide evidence with the planning application of how Biodiversity Net Gain will be achieved.
- 5.3 Prior to Biodiversity Net Gain becoming mandatory through the Environment Act, this Guidance Note will be used to inform applicants of the Council's expectations so that the necessary integration of biodiversity can inform the design of development.

Measuring Biodiversity

- 5.4 The Council expects that biodiversity will be measured using the DEFRA Biodiversity Metric, in line with Planning Practice Guidance⁵, or other appropriate method to be agreed, and that this is used to demonstrate that a biodiversity net gain outcome is being achieved.
- 5.5 The latest DEFRA Biodiversity Metric and User Guide can be obtained from the Natural England website:
<http://publications.naturalengland.org.uk/publication/5850908674228224>
- 5.6 Further details on measuring biodiversity and the use of the DEFRA Biodiversity Metric are provided later in this document.

⁵ [Natural Environment - Paragraph: 023 Reference ID: 8-023-20190721](#)

Expectation by application type

5.7 The Council expects that major planning applications will demonstrate a minimum 10% increase in Biodiversity Net Gain, and would encourage applications to consider achieving higher net gains in proposals.

5.8 A **Major** application is a development proposal that meets the following criteria:

- Residential: 10 or more dwellings / over half a hectare / building(s) exceeds 1000m² floorspace
- Commercial: 1,000m² or more floorspace / 1 or more hectares

5.9 Other planning applications submitted within the area for which Eastbourne Borough Council is the planning authority (i.e. outside the South Downs National Park) are expected to meet the criteria in Table 1.

Table 1 - Expectations by application type

Expectations by Application Type	Major applications <i>10+ dwellings / over 0.5 hectare / building(s) exceeds 1000sqm floorspace</i>	Minor applications <i>Less than 10 dwellings or less than 1,000sqm of commercial floorspace</i>	Householder <i>(extensions / outbuildings) and change of use applications</i>	Permitted development <i>The Town and Country Planning (General Permitted Development) (England) Order 2015 [as amended]</i>
Eastbourne Borough Council expectation	Minimum 10% biodiversity net gain expectation with encouragement for higher net gains	Expectation of some net gain	Net gain encouraged	Net gain encouraged
Anticipated national requirement	Minimum 10% biodiversity net gain requirement expected to be introduced with Environment Bill	Simplified version of metric expected to be introduced with modifying condition values pre-populated	Expected to be exempt	Expected to be exempt

- 5.10 The **Sustainability in Development TAN** provides a checklist for consideration of sustainability issues in Major and Minor planning applications, including biodiversity requirements and considerations. This checklist includes how evidence showing how biodiversity net gain has been considered in the proposal should be submitted. The relevant checklist should be completed and submitted with the planning application.
- 5.11 Other types of applications are encouraged to submit a statement outlining how they have considered biodiversity net gain in the proposal.

Other Biodiversity Principles

- 5.12 The Council expects that other biodiversity principles are fully considered alongside biodiversity net gain. Biodiversity net gain does not replace existing protections (designated sites, protected species); and it does not apply to irreplaceable habitat. There are laws to protect important sites and species from harm, for which Natural England have enforcement powers.
- 5.13 The NPPF requires that, when determining planning applications, local planning authorities should apply the 'mitigation hierarchy' of avoid, mitigate, compensate, and where a development cannot satisfy the requirements of the 'mitigation hierarchy', planning permission should be refused (para 175). The mitigation hierarchy is shown in Figure 1.

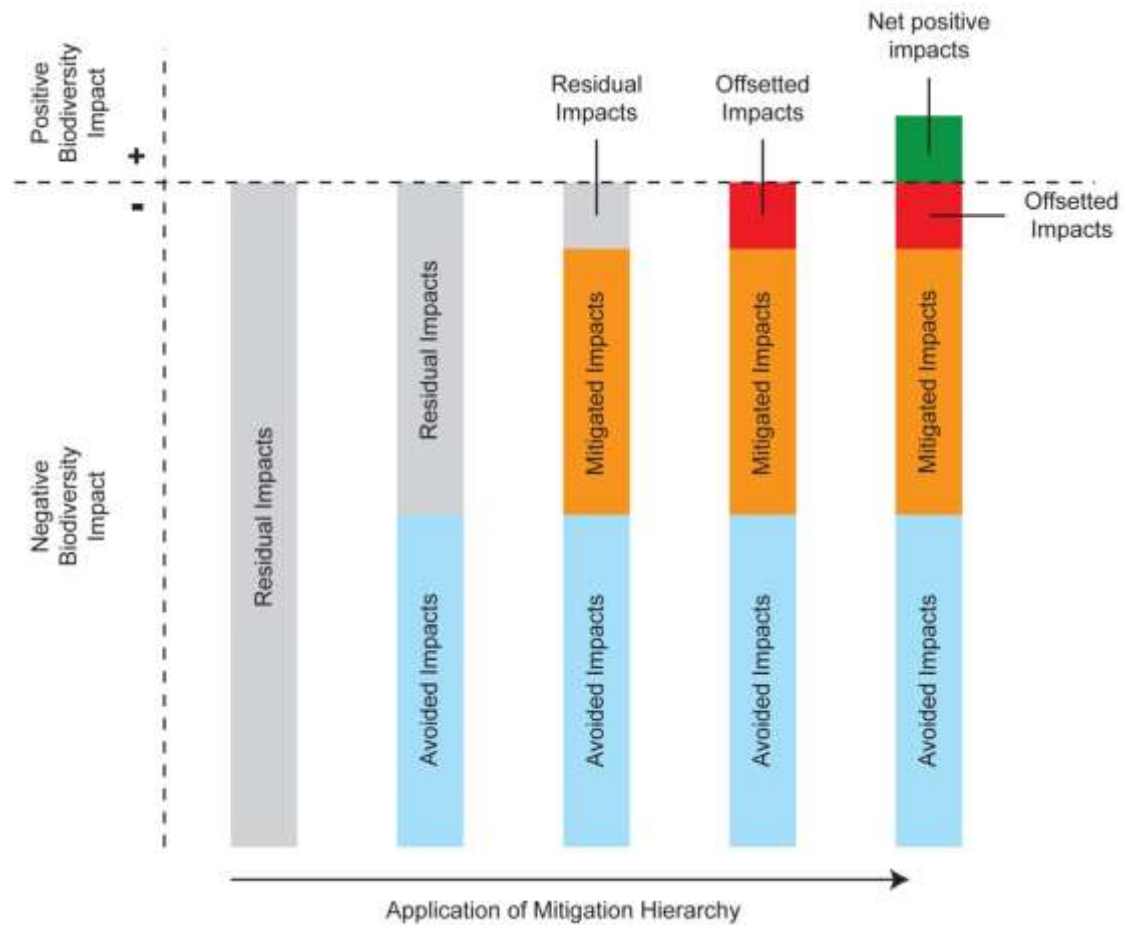
Figure 1 - Biodiversity Mitigation Hierarchy



- 5.14 The biodiversity mitigation hierarchy is a separate consideration from biodiversity net gain, and the introduction of biodiversity net gain does not weaken, undermine or replace the mitigation hierarchy as the primary

consideration. Net gain is additional to the hierarchy and only applies once the impacts on biodiversity have been avoided, mitigated and compensated. Figure 2 shows how biodiversity net gain is in addition to the mitigation hierarchy.

Figure 2 - Application of the Mitigation Hierarchy and Net Gain



Pre-emptive Clearance

5.15 The council **will not** tolerate the deliberate clearing of valuable habitats before the application process. Where there is evidence of deliberate neglect or damage to any of the habitats and species, their deteriorated condition will not be taken into consideration and the ecological potential of the site will be used to decide the acceptability of any development proposals.

6. Measuring Biodiversity Using the DEFRA Metric

- 6.1 The DEFRA Biodiversity metric should be used to assign a 'score' to the site in terms of its biodiversity. This scoring should be undertaken in accordance with the most up to date DEFRA Metric which enables the user to measure different habitat types in "biodiversity units", based on criteria such as the habitat distinctiveness, condition and extent.
- 6.2 The DEFRA metric should be used to assign a unit score to the site prior to development. The information needed to populate the metric should be taken from habitat surveys of the site before development and any related habitat clearance or management. It should then be used to assign an estimated unit score to the site after the proposed development takes place, taking into account habitats proposed on-site and if necessary, and additional habitat improvement off-site.
- 6.3 The level of net gain is established by comparing the 'pre-development' unit score with the 'post development' unit score. For major development, the 'post-development' unit score must represent a 10% increase on the 'pre-development' unit score. The process is described in Figure 3

Figure 3 - DEFRA Metric calculation


Pre-Development Baseline Biodiversity Value

$$\text{Size of Habitat parcel} \times \text{Habitat distinctiveness} \times \text{Habitat condition} \times \text{Strategic location} = \text{Baseline biodiversity units}$$

Post-Development Biodiversity Value

$$\text{Size of habitat parcel} \times \text{Habitat distinctiveness} \times \text{Habitat condition} \times \text{Strategic location} \times \text{Difficulty} \times \text{Time to target condition} \times \text{Spatial link} = \text{Future biodiversity units}$$

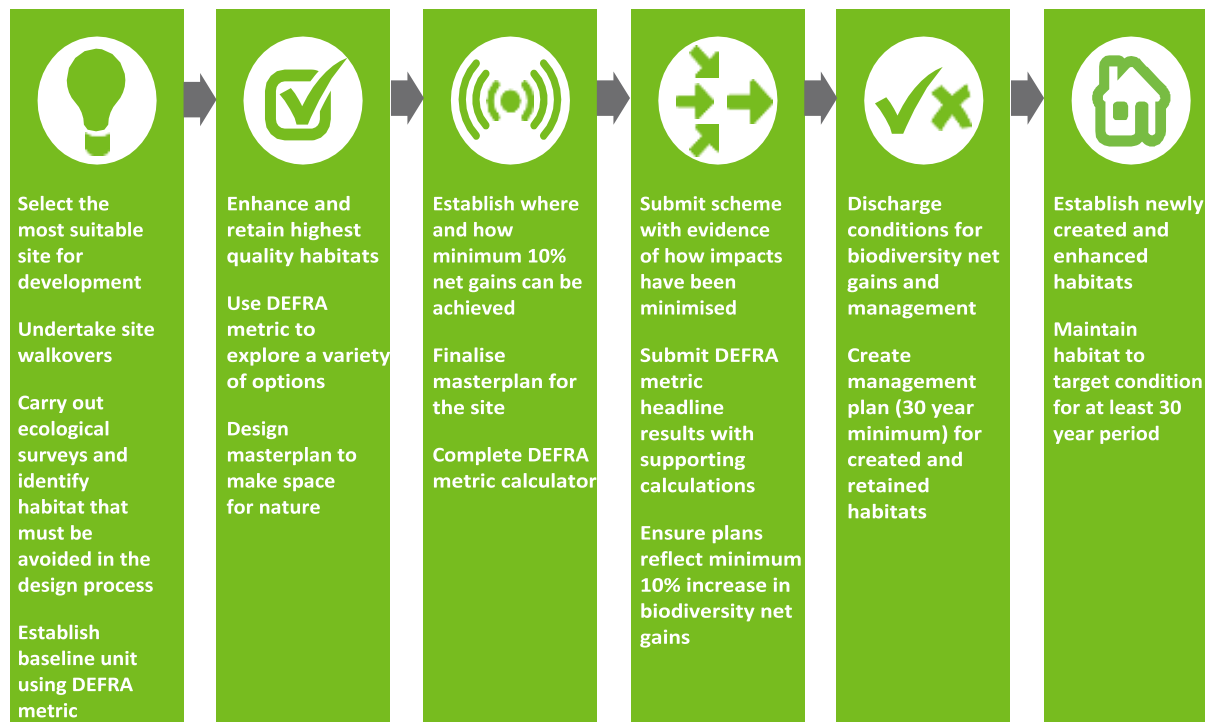
$$\text{Future biodiversity units} - \text{Baseline biodiversity units} = \text{Net loss (-) or gain (+)}$$

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- 6.4 The DEFRA Metric calculations must be made by a suitably qualified ecologist⁶ who will need to undertake an appropriate on-site ecological appraisal (to best practice standards) with the evidence base supported by robust and transparent survey information and justification.
- 6.5 For an in depth explanation of the DEFRA Metric, please see the DEFRA Metric User Guide or obtain advice from a suitably qualified ecologist.

⁶ Holds a degree or equivalent qualification in ecology or a related subject. Is a practicing ecologist, with a minimum of three years relevant experience if working without the support of a more senior ecologist. Is covered by a professional code of conduct and subject to peer review

7. Biodiversity Net Gain on Major Development

7.1 Applicants will be expected to demonstrate how they have integrated biodiversity into the development proposal at the earliest stages by following the process set out below:



7.2 Net gain for biodiversity is defined as delivering more or better habitats for biodiversity and demonstrating this through the use of the DEFRA biodiversity metric. It encourages development that delivers biodiversity improvements through habitat creation or enhancement. An expectation for Biodiversity Net Gains should be borne in mind in decisions to acquire sites. Biodiversity net gain should then be designed into the scheme at the earliest point, and should be suitable to the locality.

7.3 The Wildlife Trust publication '*How to build housing in a nature friendly way*'⁷ identifies some methods that biodiversity net gain can be designed into a scheme, and an extract from this publication is provided as Figure 1. However, it should be noted that many of these options are not applicable to the DEFRA metric, which is limited to enhancement / creation of habitats,

⁷ https://www.wildlifetrusts.org/sites/default/files/2018-05/homes_for_people_and_wildlife_lr_-_spreads.pdf

Figure 4 – Extract from *Homes for Wildlife and People – How to build houses in a nature friendly way: A Wildlife Trusts Publication (January 2018)*



Housing developments can provide accessible natural areas close to people's homes, designed to complement the wider local landscape and linking up large, nature-rich open spaces with a network of green and blue corridors. Long-term, well-funded management of these wild, open spaces would provide an environment perfect for both people and wildlife.

Features could include:

- | | | |
|--|--|--|
| 1 Permeable driveways to help reduce flood risk | 6 Bat roosts, bird boxes and other wildlife features designed into buildings | 11 Native, wildlife-friendly plants of local origin used in gardens and landscaping |
| 2 Trees, hedgerows, water and other habitats integrated with development | 7 Renewable energy and water efficiency built in from the outset | 12 Wildlife-permeable boundaries between gardens and open space |
| 3 Wildflower verges along roads and formal open spaces | 8 Safe, attractive, connective pedestrian and cycle routes | 13 Allotments and community orchards for local food |
| 4 Lighting designed to avoid disturbing wildlife | 9 Features and corridors to help invertebrates, reptiles, hedgehogs and other mammals | 14 Street trees for wildlife, shade and improved air quality |
| 5 Sustainable urban drainage, swales and rain gardens for wildlife and flood relief | 10 Wildlife-friendly green roofs and walls | 15 Interpretation panel to help people understand the needs of wildlife and the environment |

7.4 Other ways of designing schemes that promote biodiversity and deliver opportunities for net gain could include:

Planting and Landscaping

- Design landscaping with biodiversity in mind
- Use native species of seasonal value and interest to local wildlife in planting schemes
- Create wildlife corridors with rough grassland areas, hedges, trees or scrubs with appropriate management regimes
- Plant nature depleted open spaces with plug plants, saplings or native grass and wildflower mixes appropriate to the site and local soils.
- Encourage allotment creation with hedgerows, fruit tree avenues, beetle banks and other wildlife corridors
- Create environmental features in parks and open spaces, including copses, ponds, ditches, rough areas and dead wood piles
- Where appropriate and safe to do so, provide some standing dead wood or lying dead wood.
- Maximise tree canopy cover with the aim of covering no less than 20% of the developed area
- Link site to a network of green corridors within the locality and seek to compliment the Nature Recovery Network by delivering habitats that can provide connectivity and function
- Provide wildflower meadows, grass-cut mazes or verges that are appropriate in a semi-urban context.
- Consider the potential for planting new community orchards using local varieties of apple, pear and plum
- Create a mix of spaces with public access and areas protected from disturbance.

Drainage and Water Management

- Include reedbed and willow filtration systems within sustainable drainage systems (SUDS)
- Provide soft-edged drainage ditches in place of underground pipes where possible.

- Provide a sizeable amount of rough grass and if possible woodland, to encourage newts, frogs and toads and other water-loving creatures
- Where there are natural streams or rivers adjoining the development retain rough riparian grassland or sandy banks with some overhanging trees to encourage wildlife .
- Consider soft engineering options instead of canalising watercourses.
- Consider building a sand martin wall in a relatively undisturbed area

Habitat Creation

- Incorporate green walls by providing climbing plants on unused walls as nesting habitat for birds, bat roosts and for invertebrates
- Consider the use of green or 'living' roofs that feature local native vegetation.
- Provide integral house 'bricks' for swifts and bats
- Encourage the use of bat boxes, house sparrow boxes, house martin/swallow nests etc.
- Encourage wildlife-friendly climbing plants on houses and boundary fences/walls

7.5 Priorities for habitat enhancement and creation should include vegetated shingle, chalk grassland, floodplain grazing marsh, creeks, cliffs and maritime slopes.

75 Once the scheme has been designed and it can be demonstrated that Biodiversity Net Gain is being achieved, the management of the biodiversity on-site will need to be considered. In line with DEFRA recommendations, developments should be monitored for 30 years to ensure that they accord with their biodiversity commitments.

7.6 In order to demonstrate how proposals meet the requirements for biodiversity net gain, major applications will be expected to:

1. Establish Baseline Biodiversity Unit Score (Pre-development)

Assess the existing number of Biodiversity Units on the site (pre-development) using the latest version of the DEFRA Metric as part of on-site ecological appraisals performed by a suitably qualified ecologist.

2. Design net gains into development proposals

Use the information to design the site layout using the principles of the Mitigation Hierarchy. All schemes need to evidence base early consideration of habitat retention and enhancement of the best quality habitats on site. This should already be evidenced through the Ecology Assessment.

3. Calculate Projected Biodiversity Unit Score (Post-development)

Calculate the Headline Results of the Biodiversity Net Gain Metric for the completed development (final design scheme) alongside standard environmental reporting such as Environmental Impact Assessments and ecology surveys.

This must demonstrate how a minimum 10% Net Gains will be achieved over a 30 year time period. If it does not, return to stage 2 and re-design the scheme to create additional biodiversity net gain.

4. Submit Biodiversity calculations for validation


The submission of a stand-alone document that shows a minimum 10% Net Gain increase in biodiversity from the DEFRA Metric, along with its associated calculations, should be provided at validation stage.

5. Formulate a Post Construction Environment Management Plan.

Establish a management plan to ensure that the post development enhanced habitats can be effectively managed to achieve their target condition for a minimum 30 year period in line with DEFRA recommendations. This may be secured by way of planning condition.

What if Biodiversity Net Gain cannot be achieved on site?

- 7.7 Only in exceptional circumstances, where all possibilities for on-site retention, reduction, mitigation and on-site compensation have been exhausted, the applicant may explore measures for the creation of compensatory biodiversity units on separate land to the application site. This is known as biodiversity offsetting.

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- 7.8 Such off-site compensation must demonstrate the re-creation of the unit value of the biodiversity lost, plus the additional 10% Biodiversity Net Gain enhancement as a minimum. It must also demonstrate the provision of replacement habitats that are either of the same habitat type or of a higher quality.
- 7.9 Where biodiversity net gain cannot be delivered on-site, there will be a clear requirement for off-site biodiversity to deliver towards a strategic vision to ensure that benefits to biodiversity are maximised and that there is a clear mechanism for delivery. Planning Practice Guidance⁸ identifies that such off-site measures can sometimes be secured from ‘habitat banks’, which comprise areas of enhanced or created habitats which generate biodiversity unit ‘credits’. Offsetting should ideally be within Eastbourne or surrounding areas to provide the most benefit locally, and details must be fully set out in any submission.
- 7.10 The forthcoming Environment Bill intends to introduce Conservation Covenants. These are private agreements between a landowner and a “responsible body” that can be used as an alternative way to create and retain habitats for the 30 year period recommended by DEFRA. Once the Environment Bill achieves Royal Assent it is expected that applicants will be able to include draft conservation covenants with their applications. Further details will be available on this soon.
- 7.11 Given biodiversity net gain should be considered from the outset of a project, information that is proportionate to the proposal and stage of the project should be submitted with requests for pre-application advice. Equally, with Outline or Reserved Matters applications, the information provided should be relevant and proportionate to the matters for consideration.

⁸ [Natural Environment - Paragraph: 023 Reference ID: 8-023-20190721](#)



8. Biodiversity Net Gain on Minor Development

- 8.1 Applications for smaller sites comprising minor development will not initially require the submission of a DEFRA metric calculation. However, applicants could still seek a clear understanding of their development site in terms of the ecology that is present and how the site functions within the current landscape, prior to development. By having this level of understanding, it allow consideration of any biodiversity enhancements that could provide biodiversity net gain, and applicants are encouraged to incorporate the design features identified in Section 7 in a way that is proportionate to the scheme.
- 8.2 A more simple points-based system is being developed and it may be possible in the future to use this for applications in the Local Authority areas. This will provide an easy to use and robust form of biodiversity measurement which will enable the developer and Local Authority to make informed decisions about the retention, mitigation and enhancement of existing biodiversity.
- 8.3 Until that time developers still need to follow the wider planning guidance to provide biodiversity net gain set out in the NPPF and Local Plan (above).

Further Reading

DEFRA Biodiversity Metric and User Guide

<http://publications.naturalengland.org.uk/publication/5850908674228224>

National Planning Policy Framework (NPPF), 2019

<https://www.gov.uk/government/publications/national-planning-policy-framework--2>

Sussex Biodiversity Record Centre – *a recognised source for biodiversity information in Sussex*

<https://sxbrc.org.uk/home/>

The Wildlife Trusts: How to build housing in a nature friendly way

https://www.wildlifetrusts.org/sites/default/files/2018-05/homes_for_people_and_wildlife_lr_-_spreads.pdf

CIEEM: Biodiversity Net Gain – Principle and Guidance for UK Construction and Developments:

- Good Practice Principles for Development:
<https://cieem.net/resource/biodiversity-net-gain-good-practice-principles-for-development/>
- Good Practice Principles – A Practical Guide:
<https://cieem.net/resource/biodiversity-net-gain-good-practice-principles-for-development-a-practical-guide/>
- Case Studies: <https://cieem.net/resource/biodiversity-net-gain-case-studies/>

BSI British Standard

<https://www.bsigroup.com/en-GB/industries-and-sectors/construction-and-the-built-environment/corporate-social-responsibility-and-environment-management/>