

# Crawley

Local Plan

Crawley Borough Submission Local Plan 2024 Topic Paper 8:

## Biodiversity Net Gain & Urban Greening



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## 1. Introduction

- 1.1 This Topic Paper is part of the evidence base for the Submission Crawley Borough Local Plan 2024 - 2040<sup>1</sup>. It provides support for the council's approach to securing biodiversity improvements within the borough through new development, required through the Local Plan Policy GI3: Biodiversity and Net Gain.
- 1.2 Biodiversity nationally and locally has been in long term decline, there is a need to halt then reverse the decline.
- 1.3 Policy GI3 introduces Biodiversity Net Gain and the Urban Greening Factor as tools to halt species decline and improve the natural environment in a manner appropriate to the urban nature of the borough, where there are high levels of competing pressures on the land.
- 1.4 Crawley is a compact borough that is constrained by its tight borough boundaries. As such, there are limited opportunities to be able to deliver biodiversity enhancements. The Submission Crawley Borough Local Plan policies set out in Chapter 14 (Green Infrastructure and Biodiversity) aim to maximise the potential to achieve biodiversity net gain and enhancements to the environment.
- 1.5 The approach of the Submission Local Plan 2024-2040 recognises the potential benefits that can be gained from having well-connected green infrastructure, to allow for the migration and movement of species within and through the borough. In addition, critically for Crawley as an urban area, the approach recognises the importance of providing access to nature close to people.

## 2 Background

### 2.1 Environment Act 2021

- 2.1.1 One of the three overarching objectives from the National Planning Policy Framework (NPPF) to achieve sustainable development is an environmental objective. This objective seeks to “protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy”<sup>2</sup>.
- 2.1.2 The Environment Act 2021 gained royal assent in November 2021. It makes provisions relating to:
  - new targets, plans and policies for improving the natural environment;
  - statements and reports about environmental protection;
  - the Office for Environmental Protection;
  - waste and resource efficiency;
  - air quality;
  - the recall of products that fail to meet environmental standards;
  - water;
  - nature and biodiversity;
  - conservation covenants;

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<sup>1</sup> Submission Draft Crawley Borough Local Plan (May 2023) CBC

<sup>2</sup> National Planning Policy Framework, paragraph 8c (2021) MHCLG

- the regulation of chemicals; and
- connected purposes.

The Environment Act strengthens the duty to achieve the environmental objective set out in the National Planning Policy Framework (NPPF).

2.1.3 The Environment Act strengthens the provision on public bodies to conserve and enhance biodiversity. Nature and Biodiversity is a key provision within the Act (Part 6 and 7).

2.1.4 The Environment Act 2021 has brought in new requirements for councils in relation to nature and biodiversity, particularly through the following:

- Local Nature Recovery Strategies;
- Biodiversity Net Gain;
- Strengthened biodiversity duty on public authorities;
- Strategic protected site and species strategies;
- New tree felling consultation requirement.

2.1.5 Section 14 of The Environment Act brings in biodiversity gain as a condition of planning permission. Schedule 7A Biodiversity gain in England makes provision for planning permission in England to be subject to a condition to secure that the biodiversity gain objective is met.

2.1.6 Paragraph 2 sets out the biodiversity gain objectives<sup>3</sup>:

2(1) sets out that the biodiversity gain objective is to be met in relation to development for which planning permission has been granted, if the biodiversity value attributable to the development exceeds the pre-development biodiversity value of the onsite habitat by at least the relevant percentage.

2(2) The biodiversity value attributable to the development is the total of –

2(2)(a) the post development biodiversity value of the onsite habitat;

2(2)(b) the biodiversity value, in relation to the development, of any registered offsite biodiversity gain allocated to the development, and

2(2)(c) the biodiversity value of any biodiversity credits purchased for the development.

2(3) the relevant percentage to achieve net gain is 10%.

2.1.7 As highlighted above, the Environment Act has mandated the requirement to achieve a measurable 10% net gain. To support its implementation, the Act has also set out the ways in which the gain can be achieved.

2.1.8 There are intended to be some exemptions to when a development does not have to provide net gain. These are to be set out in the Regulations when these are published by the government.

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<sup>3</sup> Environment Act 2021: Schedule 14 Biodiversity Gain as condition of planning permission

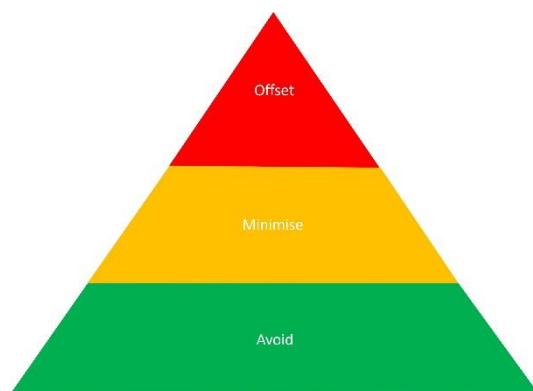
- 2.1.9 The introduction of mandatory Biodiversity Net Gain is to be introduced in addition to existing protections to habitats and species and does not undermine existing protections.

## 3 Strategic Issues

### 3.1 Biodiversity Net Gain

- 3.1.1 Biodiversity Net Gain (BNG) is an approach to development and land management that aims to leave the natural environment in a measurably better state than it was before development. The aim is to create new habitats, as well as enhancing existing habitats, providing ecological connectivity for wildlife is retained and improved. Habitats that are enhanced or created for mandatory BNG must be secured, managed and maintained for at least 30 years. This can be achieved through conservation covenants or obligations.
- 3.1.2 As of November 2023, Biodiversity Net Gain will become mandatory through the planning system. The introduction of Biodiversity Net Gain is in addition to existing habitat and species protections.
- 3.1.3 Submission Crawley Borough Local Plan Policy GI3: Biodiversity Net Gain sets out the requirements to meet the statutory implementation of Biodiversity Net Gain. Development whose primary objective is to conserve or enhance biodiversity will be supported. Developments will be expected to incorporate features to encourage biodiversity within and around the development site. Any gains provided must be measurable.
- 3.1.4 In order to calculate the provision of Biodiversity Net Gain, a metric is produced and published by the Secretary of State. The Biodiversity Metric has been established to measure the biodiversity value using habitats as a proxy to determine the biodiversity value of a site. The latest version of the Defra Biodiversity Metric (4.0) has been created and published by Natural England (March 2023). The Metric can be revised and republished from time to time, when this is the case, the Local Plan Policy makes clear that the latest version of the metric should then be used by applications.
- 3.1.5 When using the metric, the pre-development baseline date should be taken as 30 January 2020, before any interventions or development have occurred. However, if activities have been carried out on the land on or after 30 January 2020, that have resulted in the degradation of the value of the on-site habitat, then the pre-development biodiversity value of the on-site habitat is to be backdated to before the activities occurred. The Environment Act includes a caveat, set out in Schedule 14 paragraph 6(b), to mitigate against the environment being deliberately degraded prior to calculating the ecological value of the site where the baseline score is not taken as 30 January 2020.
- 3.1.6 The mitigation hierarchy sets out how best to prevent the loss of biodiversity.
- The first preference is that any loss of biodiversity should be avoided. This can be in the form of changing the design and retaining existing habitats on-site.

- If avoiding the loss of biodiversity is not achievable, then mitigating/minimising the impact is the next preference.  
Mitigating against the loss when it is deemed that any loss is unavoidable.  
Mitigation should occur by replacing lost habitats.
- The final option is to offset/compensate for the loss.  
This is a last resort option and should only occur if other mitigation methods are deficient. Off-site compensation should be sought to offset any adverse effects from the proposed development.



3.1.7 The mitigation hierarchy is also an important tool to ensure that Biodiversity Net Gain has been achieved in the most appropriate way. Biodiversity Net Gain can be secured through three mechanisms:

- Onsite;
- Off-site;
- Credits.

All gains must be secured and managed for a minimum of 30 years via either planning obligations or through Conservation Covenants. This requirement is set out in Schedule 7 of the Environment Act 2021. As set out in the policy, appropriate management and maintenance measures should be in place throughout and following development.

#### Exemptions

3.1.8 The government's emerging approach to Biodiversity Net Gain Regulations and Implementations<sup>4</sup> suggests that exemptions will apply to:

- development impacting habitat of an area below a 'de minimis' threshold of 25 metres squared, or 5m for linear habitats such as hedgerows;
- householder applications;
- biodiversity gain sites (where habitats are being enhanced for wildlife)

3.1.9 A small sites metric is to be provided by government for developments which meet the size and absence of priority habitats criteria. Small sites as defined for the purpose of Biodiversity Net Gain are:

- For residential: where the number of dwellings to be provided is between one and nine inclusive on a site having an area of less than one hectare, or where the

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<sup>4</sup> Consultation on Biodiversity Net Gain Regulations and Implementation (2023) Defra: [Consultation on Biodiversity Net Gain regulations and implementation - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/biodiversity-net-gain-regulations-and-implementation)



number of dwellings to be provided is not known, a site area of less than 0.5 hectare.

- For non-residential: where the floor space to be created is less than 1,000 square metres OR where the site area is less than one hectare.

3.1.10 Whilst it is not intended to specifically exempt previously developed land, many of the development sites within Crawley, particularly on the smaller sites, will effectively be exempted by a zero baseline score in the metric because they have no existing biodiversity features. In addition, the majority of change of use applications, again, whilst not expressly exempt, will be exempt through the de minimis habitat exemption. Furthermore, temporary applications are not exempt but the metric does make allowances for short term habitat loss.

3.1.11 Therefore, in Crawley as an urban area with many sites on previously developed land, it is a concern that many development proposals will not be required to provide the 10% Biodiversity Net Gain through the national system using the Biodiversity Metric alone. Crawley Borough Council (CBC) is committed to reversing the decline in biodiversity within the borough, and this cannot be achieved unless additional measures are taken to secure biodiversity enhancements when sites are redeveloped.

3.1.12 The draft Submission Local Plan Policy GI3: Biodiversity and Net Gain includes a requirement that all developments will be expected to incorporate features to encourage biodiversity and enhance existing features of nature conservation value within and around the development. All development proposals will need to achieve a Biodiversity Net Gain. The minimum required is 10%.

3.1.13 However, it is acknowledged that a numerical 10% from a baseline of 0, which could be the case on many previously developed sites, is zero. These developments would still be expected to achieve a Net Gain in Biodiversity. However, due to the low or non-existent level of biodiversity on such sites, it is not anticipated to be difficult to achieve an improvement to biodiversity through the inclusion of appropriate habitats. Particularly where considered early in the design process, enhancements and opportunities for nature can be carefully and cleverly incorporated even in an urban setting.

#### Low Baseline Score: Crawley's Small Sites and Brownfield Sites

3.1.14 Crawley is a tightly constrained authority, with a large proportion of the land already developed. As such, a proportion of developments coming forward within the borough are on brownfield land and involve the reuse of already developed sites. If the Local Plan was not to require developments of a smaller size and developments on sites with no existing biodiversity value to achieve a net gain in biodiversity, this would then substantially impact on the ability of the borough to achieve an overall net gain for biodiversity. There is an important opportunity in urban areas to deliver a net gain in the most crucial locations deficient of biodiversity.

3.1.15 The large sites within the borough boundary are finite, with Forge Wood, currently under construction in the North East of the borough, being the last neighbourhood scale development possible as the land available for housing is limited. Therefore, in future, there will be far greater reliance on small sites to help meet Crawley's

housing needs. The Housing Trajectory for the Local Plan anticipates 100 dwellings per annum to come forward through windfalls over the Plan period. A high proportion of these will be on smaller sites, including 15dpa of 1-4 dwellings alone<sup>5</sup>. The importance of small sites particularly in low delivery years can be seen in the monitoring year 2012/13 during which they formed 68% of permissions, and in 2022/23, whilst the borough has been subject to restrictions relating to water neutrality, they form 100% of permissions (more information is set out in Topic Paper 3: Housing Needs). This will be increasingly the case over the Plan period as the known and allocated larger sites within the borough are developed.

- 3.1.16 A large proportion of residential developments within Crawley are bought forward on 'Previously Developed Land'. This is a historical trend as well as a trend that is predicted to continue. As mentioned in paragraph 3.2.10, Forge Wood is the last neighbourhood scale development possible within the borough, with future developments relying on small sites.
- 3.1.17 A high proportion of the residential developments that have been developed since 2016/16 have been on previously developed land. From 2015/16 – 2022/23, excluding the development that has taken place at Forge Wood, the overall proportion of residential development on Previously Developed Land is 97%. Including Forge Wood, the delivery on Previously Developed Land within the borough over this same period, is 60%.
- 3.1.18 With the limited amount of space within the borough, Crawley is very dependent on the delivery of residential developments on brownfield sites/previously developed land. Looking ahead, for the period of 2023 – 2040, with a net projection of 3749 dwellings to be provided, 61% of these are to be developed on Previously Developed Land (based on the Local Plan Housing Trajectory, baseline 31 March 2023).

## 3.2 Urban Greening Factor

- 3.2.1 To reflect Crawley's urban character and the anticipated types of sites likely to be coming forward for development over the Plan period, the draft Submission Local Plan Policy GI3 introduces the Urban Greening Factor as a way to deliver Biodiversity Net Gain. The Urban Greening Factor (UGF) is a planning tool intended to improve the provision of green infrastructure particularly in urban areas. The Urban Greening Factor tool can be used to increase urban greening and can work in synergy with other policies such as contributing to Biodiversity Net Gain. The tool also calculates the amount of greening required to be provided by developments.
- 3.2.2 The tool quantifies the provisions of proposed Green Infrastructure on a development site. Proposed developments should look to contribute towards the borough's greening and to green infrastructure links. The introduction of the UGF is to help promote the use of innovative design of green infrastructure, in particular for sites that are smaller and constricted.

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<sup>5</sup> Crawley Borough Council: Windfall Allowance Statement (May 2023) CBC

3.2.3 The Urban Greening Factor is calculated using the following formula<sup>6</sup>:

<b>Urban Greening</b>	<b>Sum of each Surface Area type (m<sup>2</sup>)</b>
<b>Factor Score =</b>	<b>(Surface Area A x Factor A + Surface Area B x Factor B + Surface Area C x Factor C, etc.)</b>
<hr style="border: 0.5px solid black;"/>	
	<b>Total site area (m<sup>2</sup>)</b>

3.2.4 Surface cover types have been assigned a score in the UGF guidance (see Appendix A for UGF surface cover types and their factor scores set out in the London Plan 2021). These predetermined scores for the value of the surface area being proposed in a new development should be used when calculating the Urban Greening factor Score. Surfaces that are more natural and unsealed (e.g. grass) have higher values, whereas sealed surfaces (e.g. Tarmac) have low value scores. The score is calculated by multiplying the area of each surface cover by type by its weighting; each figure is then added together and divided by the total area within the development site boundary.

3.2.5 The final score is then compared with the target UGF score for the development site. The target UGF score for Crawley will be set out in further guidance<sup>7</sup>. The final score will then indicate if sufficient urban greening has been achieved, exceeded or if it fails to meet the target UGF score. The value of the surfaces places greater weight on high quality green provisions rather than low quality provisions. Target UGF scores should be viewed as a target score to achieve rather than a maximum score.

3.2.6 The Urban Greening Factor is an important tool to be used in urban areas. It is common within urban areas for developments to be on brownfield sites. Therefore, applying the Urban Greening Factor allows for the delivery of biodiversity benefits that have been thought through to areas that previously would not have been improved. If the Urban Greening Factor is met, then by default the Biodiversity Net Gain requirement is met, as an uplift in the provision of biodiversity has been provided.

3.2.7 The Urban Greening Factor has been introduced into draft Submission Crawley Borough Local Plan Policy GI3: Biodiversity Net Gain. The Policy requires developments which are of a smaller size to look to use the Urban Greening Factor, to achieve appropriate gains to the environment. Also, any developments that a have a low (or zero) existing baseline level of biodiversity can use the Urban Greening Factor tool to provide improvements to the green setting. This is essential to ensure the borough secures a “net gain” to biodiversity from every development.

## 4 Conclusions

4.1 The draft submission Crawley Borough Local Plan Policy GI3 addresses the mandatory requirement of Biodiversity Net Gain as a condition of planning. It is

<sup>6</sup> Urban Greening Factor Guidance

<sup>7</sup> Current cities and authorities using the Urban Greening Factor have set target scores of 0.4 for residential (London Plan) whilst the City of London is seeking a target score of 0.3.

proactive in looking to halt the decline in biodiversity and subsequently reverse it, by promoting the inclusion of biodiversity enhancements to all new developments.

- 4.2 The policy seeks to achieve a minimum 10% Biodiversity Net Gain from all developments to positively affect the borough's provision for biodiversity, achieve enhanced access to nature for a significant urban population, and improve the ecological links through the urban area to allow nature to travel in response to climate change and improve its resilience.
- 4.3 Due to the character of Crawley, its predominantly urban nature and the anticipated types of development sites which will come forward over the Plan period, it is necessary to ensure proportionate and appropriate Biodiversity Net Gain is secured from every site. The Urban Greening Factor, alongside the Defra Biodiversity Metric, provides a tool which will ensure this can be achieved.
- 4.4 Further guidance will be provided to support the implementation of the draft Submission Local Plan Policy GI3, through the update of the council's Green Infrastructure Supplementary Planning Document.
- 4.5 During the Regulation 19 Consultation 2023 representations were received in relation to both Biodiversity and the Urban Greening Factor. These comments will be used to help steer future work relating to these topics.

## Best Practice

Lichfield District Council, Biodiversity & Development SPD 2016

Greater Cambridge Biodiversity SPD (2022)

The London Plan, Urban Greening Factor

Chartered Institute of Ecologists and Environmental (CIEEM), Biodiversity Net Gain

Chartered Institute of Ecologists and Environmental (CIEEM), Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide

Doncaster Council (2022) Biodiversity Net Gain Supplementary Planning Document

## Appendix A: Surface Cover Types and Factor Scores

(sourced from the London Plan 2021<sup>8</sup>)

Surface Cover Type	Factor
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm – see <a href="http://livingroofs.org">livingroofs.org</a> for descriptions. <sup>A</sup>	0.8
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree – see Trees in Hard Landscapes for overview. <sup>B</sup>	0.8
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014. <sup>C</sup>	0.7
Flower-rich perennial planting – see RHS perennial plants for guidance. <sup>D</sup>	0.7
Rain gardens and other vegetated sustainable drainage elements – See CIRIA for case-studies. <sup>E</sup>	0.7
Hedges (line of mature shrubs one or two shrubs wide) – see RHS for guidance. <sup>F</sup>	0.6
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6
Green wall –modular system or climbers rooted in soil – see NBS Guide to Façade Greening for overview. <sup>G</sup>	0.6
Groundcover planting – see RHS Groundcover Plants for overview. <sup>H</sup>	0.5
Amenity grassland (species-poor, regularly mown lawn).	0.4
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014. <sup>I</sup>	0.3
Water features (chlorinated) or unplanted detention basins.	0.2
Permeable paving – see CIRIA for overview. <sup>J</sup>	0.1
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0

<sup>8</sup> London Plan 2021, Policy G5: Urban Greening, Table 8.2, page 324 (March 2021) The Mayor of London: [the\\_london\\_plan\\_2021.pdf](https://www.london.gov.uk/what-we-do/urban-greening)