



Biodiversity Net Gain

Land at Sunnindale

Marriotsgate

Lutton, Lincolnshire



Client: Mr S. Butler

Project Ref: TE/LB/2024_766

Revision: FINAL rev 1

Issue date: 22nd July 2025

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Date	22 nd July 2025
Version	FINAL Rev 1

This Biodiversity Net Gain report has been prepared by Torc Ecology Ltd for the sole and exclusive use of Mr S. Butler in response to his particular instruction.

This report has been prepared in accordance with The Statutory Biodiversity Metric User Guide (DEFRA, 2024) and Biodiversity Net Gain. Good Practice Principles for Development (Baker, et. al. 2019).

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1. EXECUTIVE SUMMARY

1.1. Torc Ecology Ltd was commissioned by Mr S Butler Ltd in July 2024 to undertake Preliminary Ecological Appraisal and a Biodiversity Net Gain assessment of a proposed development within Land at Sunindale, Marriotsgate, Lutton in Lincolnshire. The following report has been revised to reflect a change to the planning application boundary and the site layout.

1.2. The centre of the development is located at Ordnance Survey (OS) grid reference TF 43239 24981. The site comprises approximately 1099m² / 0.1 hectares consisting of the southern part of garden habitat at a residential property known as Sunindale including a vegetated garden, a number of trees and a non-native ornamental hedgerow. Garden habitat will be part-removed as will an individual silver birch tree to facilitate the development.

1.3. The following table outlines the results of a Biodiversity Net Gain calculation undertaken of the site using DEFRA's Statutory Biodiversity Metric Calculation Tool V4.0:

Considerations	Description	Comments
Biodiversity Evaluation	Pre and post-development scenarios were measured using the Defra Biodiversity Metric Calculation Tool version 1.0.4. (July 2025)	All Trading Rules have been met.
Biodiversity Value	Baseline habitats	The site comprised vegetated garden habitat including five medium sized trees and a non-native hedgerow. Baseline habitats were valued at 1.00 Biodiversity Units (BUs) whilst baseline hedgerow units were valued at 0.03 BUs .
	Proposed development	0.78 garden habitat BUs are to be retained There is a minus 22.63% total net change representing a deficit of - 0.33 Habitat BUs . The hedgerow is to be retained but there is no net change in the hedgerow BUs representing a deficit of -0.01 Hedgerow BUs .
Biodiversity Impacts	Calculations show a predicted deficit in habitat and hedgerow Biodiversity Units.	An offsite provider will be used to achieve the mandatory 10% biodiversity net gain for the site.

2. INTRODUCTION

2.1. Background information

2.1.1. Torc Ecology Ltd was commissioned by Mr S. Butler in July 2024 to calculate the predicted changes in biodiversity value associated with a proposed development of Land at Sunindale, Marriotsgate, Lutton, Lincolnshire PE12 9HN, hereafter referred to as 'the site'.

2.1.2. The site (OS Central Grid Reference TF 43239 24981) comprises 1099.9m² / 0.1 hectares consisting of the southern part of garden habitat at a residential property known as Sunindale. A single dwelling and garage is proposed to be built within existing garden habitat with associated front and rear gardens and off-road parking. A non-native hedgerow is to remain and some garden habitat, including some trees are to be retained. Access will remain as existing from Marriotsgate.

2.1.3. This report provides the revised baseline conditions of the site as shown in Figure 1: Baseline Habitat Map and the proposed site layout as shown in Figure 2: Post-Development Habitat Map (refer to Appendix I). The revisions allow for the purchase of offsite Biodiversity Units rather than providing onsite biodiversity net gain following a change to the planning application boundary. The site layout has also since been altered. A summary of the results of the revised net gain calculations are also provided.

2.1.4. For clarity and additional detail, where required, this report should be read in conjunction with the Preliminary Ecological Appraisal Report (Torc Ecology Ltd, 2024) produced for the site.

3. METHODOLOGY

3.1. Habitat mapping

3.1.1. The field survey comprised of a Phase I habitat survey of the site which included surveying for different habitats and classifying them according to the habitats given in the UK Habitat Classification (UKHab Version 2.0). Sources of information that aided the mapping process included field survey data, aerial images and a baseline survey map supplied from the client's architect. Refer to the PEA report (Torc Ecology Ltd., 2024) for full PEA survey methodology details.

3.1.2. Using metres as the basic unit of measurement the projection for mapping was the British National Grid Ordnance Survey OSGB 1936 (EPSG 27700). A 'Minimum Mapping Unit' of c. 25m² was applied for the purpose of mapping. Habitats were mapped by en:mapping Ltd using ESRI ArcGIS / ArcPro.

3.1.3. A condition assessment was undertaken alongside the UKHab survey. This involves assessing a series of attributes representing key physical characteristics of each habitat type. The attributes are used to assess whether the habitat is in a favourable condition. The relevant habitats present on site were assessed as in either poor, moderate or good condition, where necessary. Relevant habitats included individual urban trees and modified grassland (refer to Appendix II).

3.2. Calculating Biodiversity Units

3.2.1. DEFRA's Statutory Biodiversity Metric Calculation Tool V1.0.4. (July 2025) was used to record baseline and post-development habitats for the purpose of determining biodiversity net gain.

3.2.2. The biodiversity baseline for the site was based on habitat types and areas, their distinctiveness and condition scores and the number of biodiversity units each type of habitat generates. Strategic Significance is determined with reference to local policies and in consultation with the Local Planning Policy (refer to Appendix III). A Local Nature Recovery Strategy has not yet been published for the South Holland District. Therefore the South East Lincolnshire Local Plan 2011-2036 and the Lincolnshire Biodiversity Action Plan were referred to as the key documents for assigning Strategic Significance to habitats upon the site and for offsite net gain.

3.2.3. The Biodiversity Metric Calculation Tool was undertaken in accordance with the Biodiversity Net Gain Good Practice Principles for Development (Baker, et al. 2019) as provided in Appendix IV.

3.3. Author

3.3.1. Ms Louise Brown is the author of this BNG report. Ms Brown is a Full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) and a Consultant Ecologist at Torc Ecology Ltd. Ms Brown is an experienced field ecologist of over twenty-years' experience holding Natural England survey licences for bats (Ref: 2016-20937-CLS-CLS); great crested newts *Triturus cristatus* (Ref: 2016_27348-CLS-CLS) and barn owls *Tyto alba* (Ref: CL29/00224) as well as a Registered Consultant (RC062) on the Bat Mitigation Class Licence.

3.3.2. Ms Brown has attended a number of CIEEM approved courses in relation to biodiversity net gain, including: 'UK Habitat Classification for Biodiversity Net Gain', 'Statutory Biodiversity Metric Training', and 'QGIS for Ecologists and Conservation Practitioners'.

4. RESULTS

4.1. Baseline habitats

4.1.1. The site comprises a total area of 1099.9m². There are no irreplaceable habitats upon the site. None of the baseline habitats are categorised as being above low Strategic Significance, these habitats being of low conservation value and not being listed as or meeting the criteria for LBAP habitats. A brief description of the onsite habitats are provided overleaf.

Vegetated garden

4.1.2. Much of the garden habitat was laid to lawn which was well-maintained at a low even sward of less than 5cm. There were limited herbaceous species within the sward, including greater plantain *Plantago major* and common thistle *Cirsium vulgare*.

4.1.3. A line of shrubs was present adjacent the north boundary and included hazel *Corylus avellana*, spindle *Euonymus europaeus*, yew *Taxus baccata* and azalea *Rhododendron sp.* Other ornamental planting upon the site included *forsythia sp.*, redcurrant *Ribes rubrum* and hebe *Veronica sp.*

Individual urban trees

4.1.4. A number of native and non-native trees were present within the vegetated garden. Upon the south boundary was a mature oak *Quercus robur* and whitebeam *Sorbus aria* with semi-mature cherry *Prunus sp.*, an apple *Malus sp.* and a yew tree present. Some self-set immature cherry trees were also present amongst ornamental shrub planting upon the south boundary. Towards the north boundary was a mature conifer with smaller ornamental conifer and yew topiary. A semi-mature rowan *Sorbus aucuparia* and a mature non-native tree were also present within the lawned area. For the purpose of biodiversity net gain, there were five trees of a medium size class that were recorded into the Statutory Biodiversity Metric Calculation Tool.

Non-native ornamental hedgerow

4.1.5. A non-native laurel *Laurus nobilis* hedgerow was present upon the west boundary and part of the south boundary of the garden habitat. The hedgerow was approximately 2.5m in height and 1m in width, had no gaps and was subject to regular management. The hedgerow continued offsite to the north.

4.1.6. A baseline biodiversity map showing the existing habitats across the site is provided in Figure 1 (Appendix I). The habitat types and the hedgerow values are also presented in the tables below. The values presented are taken from DEFRA's Statutory Biodiversity Metric Calculation Tool. Condition Assessments for the urban trees are provided in Appendix II.

Table 1: Onsite Habitat Baseline

Habitat Type	Area (ha)	Ecological Baseline Units (BUs)	Comments
Vegetated Garden (u828)	0.10999	0.22	0.06175 (617.5m ²) vegetated garden to be retained A single 'Moderate' condition tree to be lost; two 'Moderate' condition trees and two 'Good' condition trees to be retained.
Individual urban trees (u32) – Moderate condition	0.0489	0.39	
Individual urban trees (u32)– Good condition	0.0326	0.39	
Total BUs		1.00	Retained units 0.78 BUs

Table 2: Onsite Hedgerow Baseline

Hedgerow	Length (km)	Ecological Baseline Units (BUs)	Comments
Non-native ornamental hedgerow (h2b)	0.0342	0.03	Hedgerow to be retained but a 10% gain is required.

4.2. Post-development habitats

4.2.1. Post-development the site will comprise a new property and garage, vegetated gardens to the front and rear with associated parking, access and landscaping.

4.2.2. The rear garden will be laid to lawn whilst an area of wildflower lawn will be sown to the front of the property and will comprise a suitable seed mix e.g. EL1F Wild Flowers for Lawns. There will be 617.5m² retained garden habitat, which is less than the pre-development area. Vegetated garden habitat is therefore not included in the post development onsite habitat creation.

4.2.3. The south boundary will be gapped up with native hedgerow and tree species and can replace any vegetation removed to facilitate the new drive. A combination of hawthorn *Crataegous monogyna*, hazel *Coryllus avellana*, field maple *Acer campestre*, cherry and silver birch *Betula pendula* will be used. The additional hedgerow and tree planting is categorised as part of the vegetated garden for the purpose of the biodiversity net gain assessment. This is therefore not included in the post development onsite habitat creation.

4.2.4. Additional ecological enhancement measures for bats, birds, hedgehogs and pollinating insects have been included within a separate Ecological Constraints and Opportunities Plan (refer to the Preliminary Ecological Appraisal Report, Torc Ecology Ltd, 2024).

4.2.5. The Post-Development Habitat map is provided in Figure 2 (Appendix I) The post-development habitat types are presented in the table below. The values presented are taken from DEFRA's Statutory Biodiversity Metric Calculation Tool.

Table 3: Post development Habitat Creation

Habitat Creation	Area (ha)	Ecological Baseline Units (BUs)	Comments
Urban - Developed land; sealed surface (u1b)	0.00378	0.00	Paths and patios
Urban - Developed land; sealed surface (u1b5)	0.01956	0.00	New property and garage
Artificial unvegetated unsealed surface (u1c)	0.0249	0.00	Gravel drive
TOTAL BUs		0.00	There is a net change of -22.63% Habitat BUs

4.2.6. An offsite provider will be used to achieve the mandatory 10% biodiversity net gain for the site.

5. CONCLUSION

5.1. The baseline condition of the site provides 1.0 habitat BUs and 0.03 hedgerow BUs. Post-development the proposed onsite habitats, including retained habitats, provide 0.78 habitat BUs whilst hedgerows provide 0.03 BUs. The total net unit change is **–0.23 Habitat BUs** representing a **deficit of 0.33 units** taking into account the required 10% net gain. The total net unit hedgerow change is **0.00 BUs** representing a deficit of **0.01** units, again taking into account the required 10% net gain.

5.2. An offsite provider will be used to achieve the mandatory 10% biodiversity net gain for the site with the compensation to be within the same Local Planning Authority boundary or National Character Area of the site.

5.3. The assessment has confirmed the site can achieve a total project Biodiversity Net Gain above the 10% threshold with the purchase of offsite BUs. The biodiversity metric calculation spreadsheet has been provided with this report for review as required.

6. REFERENCES

Baker, J., Hoskin, R. & Butterworth, T., 2019. *Biodiversity net gain. Good practice principles for development*. A practical guide, London: CIRIA.

Borough Council of King's Lynn and West Norfolk (2023). *Interim Strategic Significance & Spatial Risk Guidance for Biodiversity Net Gain in King's Lynn and West Norfolk Borough Council's Local Planning Authority Area*. Borough Council of King's Lynn and West Norfolk. King's Lynn.

Department for Communities and Local Government. (2022). *National Planning Policy Framework*. Department for Communities and Local Government, London.

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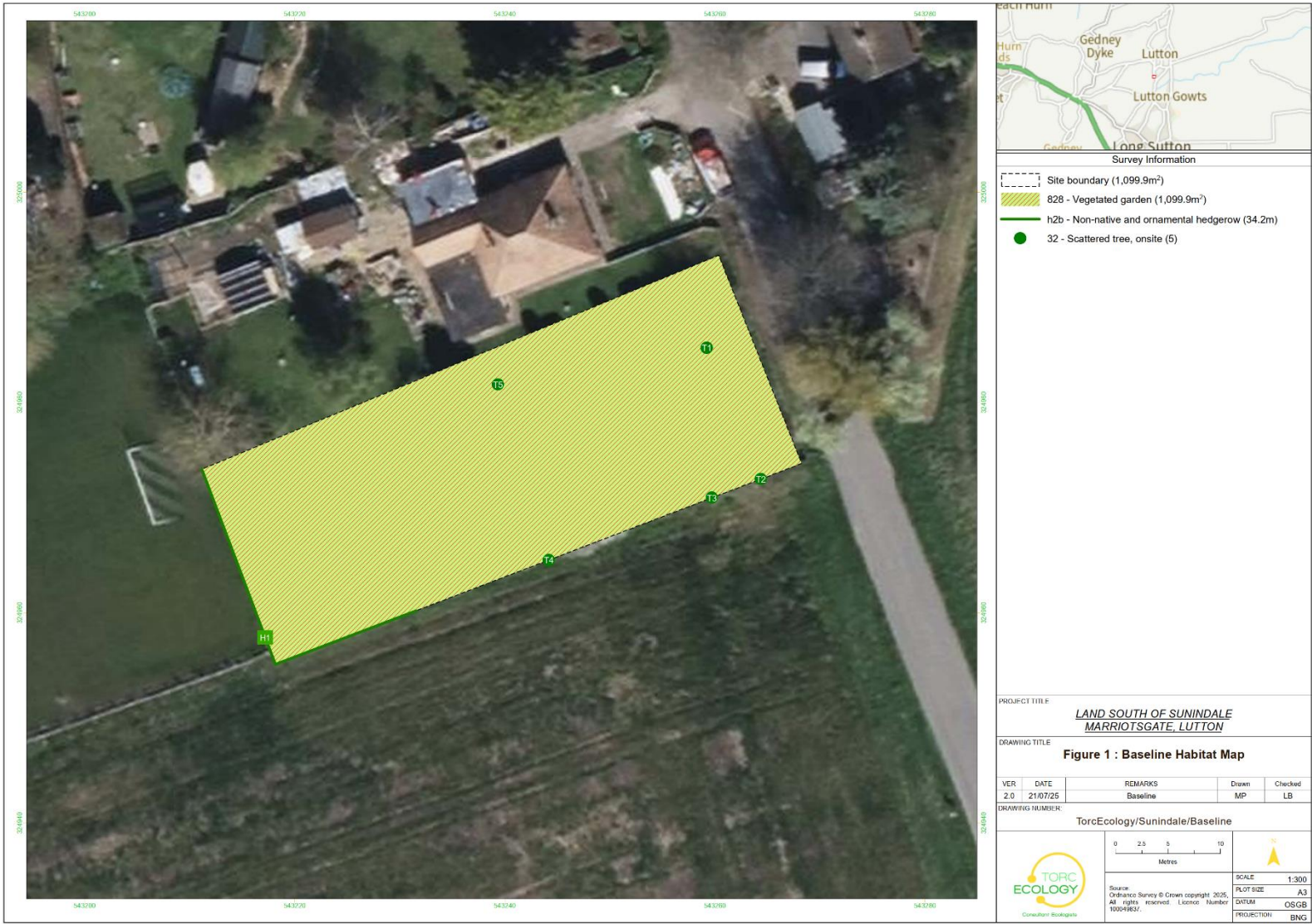
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Web references

DEFRA (2024). *The Statutory Biodiversity Metric User Guide*.
https://assets.publishing.service.gov.uk/media/669e45fba3c2a28abb50d426/The_Statutory_Biodiversity_Metric_-_User_Guide_23.07.24_.pdf DEFRA.

APPENDIX I: FIGURES 1 – 2





APPENDIX II: CONDITION ASSESSMENTS

Condition assessment for trees (garden habitat)

Condition Sheet: INDIVIDUAL TREES Habitat Type															
Habitat Types															
Individual trees – Urban trees Individual trees – Rural trees Complete a condition sheet for each tree or block of trees.															
<i>Please see the separate Line of trees condition sheet for a line of <u>rural</u> trees. You should only use the Line of trees condition assessment and record that habitat type in <u>rural</u> locations.</i>															
Habitat Description															
Urban trees in a vegetated garden. T1 - Mature non-native species / T2 - Mature oak (Quercus robur) / T3 - Mature whitebeam (Sorbus aria) / T4 - Semi-mature cherry (Prunus sp) / T5 - Mature leylandi. Other small trees present not listed.															
Individual trees (description applied to the urban or rural environment): Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.															
Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only): Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.															
On-site or off-site, site name and location	Land at Sunindale, Marriotsgate, Lutton, Lincolnshire				Survey date and Surveyor name		16th September 2024. Louise Brown MCIEEM								
					Survey reference (if relating to a wider survey)		N/A								
Limitations (if applicable)	N/A				Habitat parcel reference										
					T1	T2	T3	T4	T5						
					Grid reference										
Condition Assessment Criteria					T	F	4	3	2	3	2	4	9	8	
					Criterion passed (Yes or No)										Notes (such as justification)
A	The tree is a native species (or at least 70% within the block are native species).				No	Yes	Yes	Yes	No						
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).				Yes	Yes	Yes	Yes	Yes					Individual trees	
C	The tree is mature (or more than 50% within the block are mature) ¹ .				Yes	Yes	Yes	No	Yes						
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.				Yes	Yes	Yes	No	Yes					T4 comprises a split trunk close to the base leading to deformed growth.	
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.				No	Yes	Yes	Yes	No					Creeping ivy is present upon trees T2 - T4.	
F	More than 20% of the tree canopy area is oversailing vegetation beneath.				Yes	Yes	Yes	No	Yes					T4 does not have oversailing vegetation due to deformed growth.	
Number of criteria passed					4	6	6	3	4						
Condition Assessment Result (out of 6 criteria)		Condition Assessment Score		Score Achieved x/✓											
Passes 5 or 6 criteria		Good (3)			Y	Y									
Passes 3 or 4 criteria		Moderate (2)		Y			Y	Y							
Passes 2 or fewer criteria		Poor (1)													

APPENDIX III: BIODIVERSITY NET GAIN AND PLANNING POLICY

National Planning Policy Framework

The NPPF sets out current government policy on biodiversity and nature conservation and places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning applications (MHC&LG, 2019). The NPPF also promotes sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within a development.

Under the NPPF planners have a duty to promote the conservation, restoration and enhancement of priority habitats. 'Plans should identify and pursue opportunities for securing measurable net gains for biodiversity'.

The NPPF works in conjunction with Government Circular 06/2005 'Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System'.

Local Planning Policies

The South East Lincolnshire Local Plan 2011 – 2036, in which South Holland district falls, was adopted in March 2019. Policy 28 'The Natural Environment' states that a high quality, comprehensive ecological network of interconnected designated sites, sites of nature conservation importance and wildlife-friendly greenspace will be achieved by protecting, enhancing and managing natural assets, partly by addressing gaps in the ecological network:

By ensuring that all development proposals shall provide an overall net gain in biodiversity, by:

- i protecting the biodiversity value of land, buildings and trees (including veteran trees) minimising the fragmentation of habitats;
- ii maximising the opportunities for restoration, enhancement and connection of natural habitats and species of principal importance;
- iii incorporating beneficial biodiversity conservation features on buildings, where appropriate; and maximising opportunities to enhance green infrastructure and ecological corridors, including water space; and
- iv conserving or enhancing biodiversity or geodiversity conservation features that will provide new habitat and help wildlife to adapt to climate change, and if the development is within a Nature Improvement Area (NIA), contributing to the aims and objectives of the NIA.

Biodiversity Action Plans

The UK Biodiversity Action Plan (UKBAP) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A 'UK Post-2010 Biodiversity Framework' was published in July 2012 and succeeded the UKBAP. Much of the work for the UK BAP is now focussed at a country level due to devolution and the creation of country-level biodiversity strategies.

The UKBAP lists of priority species and habitats are still valuable reference sources. Notably, they have been used to help draw up statutory lists of priority species and habitats as required under Section 41 of the NERC act and are relied upon to provide the information required to assign Strategic Significance during Biodiversity Net Gain in the absence of Local Nature Recovery Strategies.

APPENDIX IV: BIODIVERSITY NET GAIN. GOOD PRACTICE PRINCIPLES FOR DEVELOPMENT

Principle	In Practice
Apply the mitigation hierarchy	Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision makers where possible, compensate for losses that cannot be avoided. If compensating for losses within a development footprint is not possible or does not generate the most benefits for nature conservation, then offset biodiversity losses by gains elsewhere.
Avoid losing biodiversity that cannot be offset elsewhere	Avoid impacts on irreplaceable biodiversity – these impacts cannot be offset to achieve no net loss/ net gain.
Be inclusive and equitable	Engage stakeholders early, and involve them in designing, implementing, monitoring and evaluating the approach to net gain. Achieve net gain in partnership with stakeholders where possible.
Address risk	Mitigate difficulty, uncertainty and other risks to achieving net gain. Apply well-accepted ways to add contingency when calculating biodiversity losses and gains in order to account for any remaining risks, as well as to compensate for the time between the losses occurring and the gains being realised.
Make a measurable net gain contribution	Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.
Achieve the best outcomes for biodiversity	Achieve the best outcomes for biodiversity by using robust credible evidence and local knowledge to make clearly justified choices when; • Delivering compensation that is ecologically equivalent in type, amount and condition and that accounts for the location and timing of biodiversity losses • Compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation • Achieving net gain locally to the development while contributing towards nature conservation priorities at local, regional and national levels • Enhancing existing or creating new habitat • Enhancing ecological connectivity by creating more, bigger, better and joined areas for biodiversity
Be additional	Achieve nature conservation outcomes that demonstrably exceed existing obligations, i.e. do not deliver something that would occur anyway.
Create a net gain legacy	Ensure net gain generates long-term benefits by; • Engaging stakeholders and jointly agreeing practical solutions that secure net gain for the lifetime of the development and with the objective of management continuing in the future. • Planning for adaptive management and securing dedicated funding for the long-term management • Designing net gain for biodiversity to be resilient to external factors, especially climate change • Mitigate risks from other land uses • Avoiding displacing harmful activities from one location to another • Supporting local-level management of net gain activities
Optimise sustainability	Prioritise biodiversity net gain and, where possible, optimise the wider environmental benefits for a sustainable society and economy.
Be transparent	Communicate all net gain activities in a transparent and timely manner, sharing the learning with all stakeholders.