



Biodiversity Net Gain Assessment

Hornsey Police Station, Tottenham Lane, London N8 7EJ

Archaneum

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Industry Guidelines and Standards

This report has been written with due consideration to:

- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management, Construction Industry Research and Information Association & Institute of Environmental Management and Assessment (2019). Biodiversity Net Gain – Good Practice Principles for Development.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Archaneum to undertake a Biodiversity Net Gain (BNG) Assessment at Hornsey Police Station, Tottenham Lane, London N8 7EJ (hereafter referred to as “the site”). The assessment was required to inform a planning application to retain, refurbish and extend the existing police station (Block A) alongside the construction of two new build blocks (Blocks B & C) to provide 29 new dwellings (10 houses, 19 flats) with associated landscaping (hereafter referred to as “the proposed development”).

- The current proposed plan results in a 100% net gain in habitat units. This is more than the 10% target of biodiversity net gain.
- Target conditions for all new habitats have been set to poor, and therefore no 30-year management plan should be required.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Archaneum to undertake a Biodiversity Net Gain (BNG) Assessment at Hornsey Police Station, Tottenham Lane, London N8 7EJ (hereafter referred to as “the site”). The assessment was required to inform a planning application to retain, refurbish and extend the existing police station (Block A) alongside the construction of two new build blocks (Blocks B & C) to provide 29 new dwellings (10 houses, 19 flats) with associated landscaping (hereafter referred to as “the proposed development”).

A plan showing the proposed development is provided in Appendix 1.

This report should be read in conjunction with the following documents:

- Defra Biodiversity Metric 4.0.
- Preliminary Ecological Appraisal (Arbtech Consulting Ltd, April 2023)

1.2 Site Location and Landscape Context

The site is located at National Grid Reference TQ30638902 and has an area of approximately 0.2ha comprising a single block of buildings which comprise Hornsey Police Station. It is surrounded by a highly urban local setting, with residential plots and local stores present in the immediate vicinity of the site. The wider landscape comprises the same infrastructure, and the city of London extends to the south. A site location plan is provided in Appendix 2.

A site location plan is provided in Appendix 2.

1.3 BNG Informative

BNG is a specific, measurable outcome of project activities that deliver demonstrable and quantifiable benefits to biodiversity compared to the baseline situation. In order to achieve BNG, a project must be able to demonstrate that it has followed all 10 of the Principles of Biodiversity Net Gain (as outlined in the *British Standard 8683:2021 Process for Designing and Implementing Biodiversity Net Gain*).

The legalised Environment Act (2021) requires developments in England to demonstrate a measurable net gain in biodiversity and sets a target of a minimum of 10% BNG for all developments. It also stipulates that a management plan with a minimum 30-year term, should be adopted to ensure biodiversity net gain can be delivered. The Environment Act (2021) is still in a transitional phase and is not expected to become mandatory until November 2023. However, the requirement for biodiversity net gain is also enshrined within the National Planning Policy Framework (NPPF, 2021).

The DEFRA Biodiversity Metric 4.0 is the widely accepted tool used to calculate BNG. It enables the calculation of habitat value pre- and post-development in order to determine the overall change in biodiversity value as a result of the proposed development. The Biodiversity Metric has separate BNG assessments for areas of habitat, hedgerows and watercourses.

The biodiversity value of a site should be maximised. However, it may not always be possible to achieve a 10% biodiversity net gain within a site and therefore the Biodiversity Metric 4.0 can also account for offsite habitat creation, where land is available. Alternatively, developers can seek to provide an agreed financial contribution to an appropriate third party (such as the Local Authority, the UK Government or another landowner) to deliver the required biodiversity net gain elsewhere on their behalf.

2.0 Methodology

2.1 Baseline Biodiversity Value

The baseline BNG Calculation was informed by the Preliminary Ecological Appraisal (“PEA”; Arbtech, April 2023). A baseline habitat plan is provided in Appendix 3.

Habitat Classification

The PEA (Arbtech, April 2023) classified the habitats on site according to UK Habitat Classification User Manual (UK Habitat Classification Working Group, 2018).

Habitat Area/Length

The area or length of each habitat was calculated using qGIS software. In calculating the area or length of each habitat, habitats which occur as two or more isolated parcels across the site were combined, where they were deemed to be of a similar composition and condition. Distinctions were made between habitats to be retained (i.e. left as found in baseline), enhanced (i.e. improved condition) or lost (i.e. destroyed by proposed development).

Areas of scattered trees were calculated using the Tree Helper tool within the Biodiversity Metric 4.0. Class sizes for urban trees are set out in Table 8-1 of the Biodiversity Metric 4.0 User Guide (Natural England, 2023).

Habitat Condition

Habitat condition was assessed using the relevant condition assessment sheets found in the Biodiversity Metric 4.0 User Guide (Natural England, 2023).

Strategic Significance

Strategic significance was assigned for each habitat based upon a review of the following:

- Ecological value
- Function within the landscape
- Any site or habitat allocations under the Local Plan

2.2 Post Development Biodiversity Value

The post development BNG Calculation was informed by the proposed landscaping plan which is included in Appendix 1. A post development habitat plan is provided in Appendix 4.

Habitat Classification

Proposed habitats were translated to their equivalents in the UK Habitat Classification using The UK Habitat Classification Habitat Definitions Version 1.0 (The UK Habitat Classification Working Group, May 2018) and the information provided within the proposed landscaping plan.

Habitat Area/Length

The area or length of each proposed habitat was calculated using qGIS software. In calculating the area or length of each habitat, habitats which occur as two or more isolated parcels across the site were combined, where they were deemed to be of similar composition and condition. Distinctions were made between habitats to be retained (i.e. left as found in baseline), enhanced (i.e. improved condition) or newly created.

Areas of scattered trees were calculated using the Tree Helper tool within the Biodiversity Metric 4.0. Class sizes for urban trees are set out in Table 8-1 of the Biodiversity Metric 4.0 User Guide (Natural England, 2023).

Habitat Condition

Target habitat condition for each proposed habitat was determined assessed using the Temporal Multipliers Tool and the Enhancement Temporal Multipliers Tool included in the Biodiversity Metric 4.0 spreadsheet as well as the relevant condition assessment sheets found in the Biodiversity Metric 4.0 User Guide (Natural England, 2023). Target conditions for all new habitats have been set to poor, and therefore no 30-year management plan should be required.

Strategic Significance

Strategic significance was assigned for each proposed habitat based upon a review of the following:

- Likely ecological value
- Function within the landscape
- Any site or habitat allocations under the Local Plan

2.3 Limitations

There were no specific limitations to the assessment.

3.0 Results

3.1 Baseline Habitats

Table 1 details the baseline habitats present within the site along with their area/length, condition and strategic significance. A full condition assessment for each habitat (where relevant) is provided.

Table 1: Baseline Biodiversity Value

Habitat	Area (ha)	Description	Condition Assessment	Strategic Significance
Developed land, sealed surface	0.2075	As described in the PEA.	N/A.	No strategic significance and not known to be included in any local plan.

3.2 Post Development Habitats

Table 2 details the post development habitats present within the site along with their area/length, condition and strategic significance. An assessment of the anticipated condition for each habitat (where relevant) is provided.

Table 2: Post Development Biodiversity Value

Habitat	Area (ha)	Description	Target Condition	Strategic Significance
Developed land, sealed surface	0.1575	New buildings and hard standing.	Poor.	No strategic significance and not known to be included in any local plan.
Mixed scrub	0.01	New mixed scrub.	Poor.	No strategic significance and not known to be included in any local plan.
Green roof	0.04	New green roof.	Poor.	No strategic significance and not known to be included in any local plan.
Green wall	0.0072	New green wall.	Poor.	No strategic significance and not known to be included in any local plan.
Urban tree	0.0814	14 new small trees.	Poor.	No strategic significance and not known to be included in any local plan.

3.3 Change in Biodiversity Value of the Site

Full details are provided in the Defra Biodiversity Metric 4.0.

Areas of Habitat

The baseline habitat value of the site is 0 units.

The post development habitat value of the site is 0.38 units.

This results in a net change in biodiversity of 100% (i.e. a net gain).

4.0 Recommendations to Deliver BNG

4.1 Discussion

The current proposed plan results in a 100% net gain in habitat units. This is more than the 10% target of biodiversity net gain.

Target conditions for all new habitats have been set to poor, and therefore no 30-year management plan should be required.

5.0 Bibliography

- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- CIEEM-CIRIA-IEMA (2019) Biodiversity Net Gain – Good Practice Principles for Development.
- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey a technique for environmental audit.
http://jncc.defra.gov.uk/PDF/pub10_handbookforphase1habitatsurvey.pdf
- Natural England (2023). The Biodiversity Metric 4.0 (JP039).
- Natural England (2023). The Biodiversity Metric 4.0 User Guide (JP039).
- Natural England (2023). The Biodiversity Metric 4.0 Technical Annex 1 - Condition Assessment Sheets and Methodology (JP039).
- Natural England (2023). The Biodiversity Metric 4.0 Technical Annex 2 – Technical Information (JP039).
- UK Habitat Classification Working Group (2018). UK Habitat Classification – Habitat Definitions V1.0.

Appendix 1: Proposed Development Plan

J. Landscape Specification

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Appendix 2: Site Location Plan



Appendix 3: Baseline Habitat Plan



