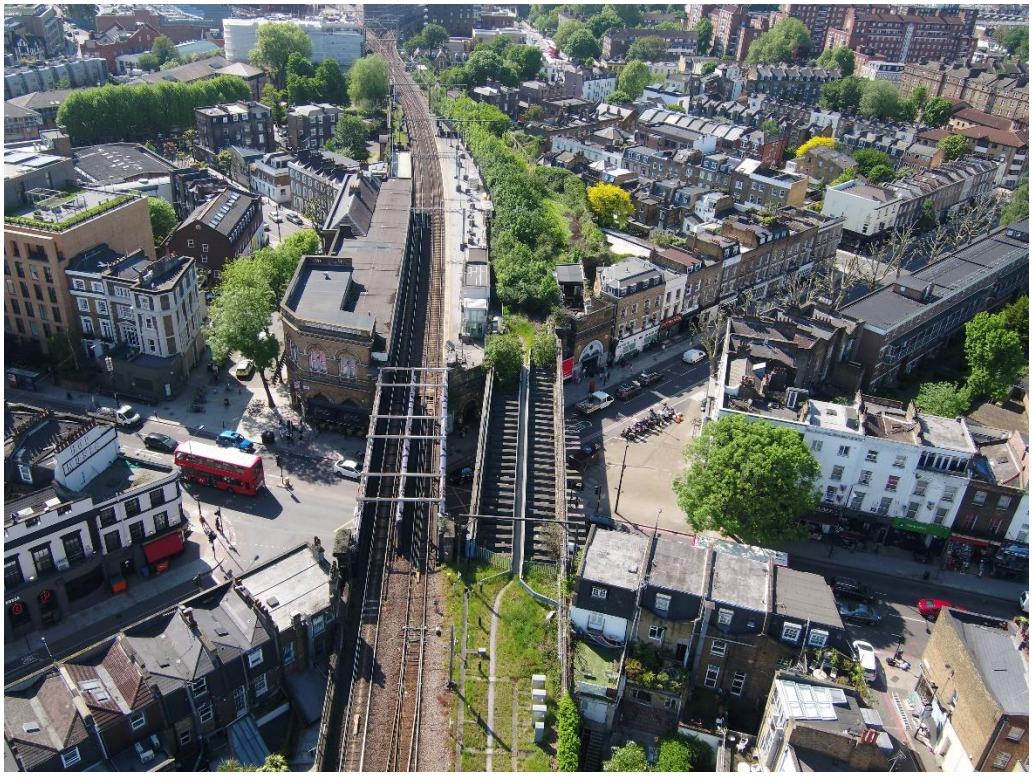
Biodiversity Net Gain Report

Camden High Line (Phase 1)



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Executive Summary

This is a Biodiversity Net Gain assessment for Phase 1 of the Camden High Line. The calculation is based on Biodiversity Metric 3.0.

The existing habitats on site comprise an area of species-poor scrub/secondary woodland with small patches of species-poor grassland and ruderal habitats. Together they have a baseline biodiversity value of 0.85 biodiversity units. The habitats are not managed to maintain or enhance their ecological value and management is limited to cutting to maintain operational safety of the railway.

The proposed habitats comprise newly created shrubs and trees, comprising a diverse mix of species with small areas of diverse native and horticultural tall herbs and perennials. Together these are projected to have a biodiversity value of 0.98 biodiversity units.

The overall biodiversity net gain delivered by the proposal is expected to be 15%. However, the actual net gain in terms of habitats is relatively small as the baseline value was very low.

Nevertheless, the proposal also aims to provide other biodiversity benefits (such as nesting and roosting sites) and the new landscape will be managed to a high standard for the long-term.

Moreover, the proposal aims to create an accessible naturalistic landscape which will provide increased access to nature for the local community and aims to be a catalyst for further landscape and ecological improvements in the wider public realm.

1 Introduction

1.1 A Biodiversity Net Gain Report is a description and evaluation of the biodiversity value of a site prior its development and the projected biodiversity value of the measures taken to conserve and enhance biodiversity during and after development.

1.2 The report was written by Peter Massini, Associate Technical Director, London Wildlife Trust Consultancy. He is a member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

2 Context

2.1 The concept of 'biodiversity net gain' (BNG) has become established in planning policy in recent years.

2.2 National Planning Policy Framework[1] encourages development to contribute to and enhance the natural environment by "*minimising impacts on and providing net gains for biodiversity*".

2.3 Camden's Local Plan[2] policy on Biodiversity (Policy A3) advises, amongst other things, that the planning authority will "assess developments against their ability to realise benefits for biodiversity through the layout, design and materials used in the built structure and landscaping elements of a proposed development, proportionate to the scale of development proposed".

2.4 The recently adopted Environment Act 2021 contains a provision that will make a 10% biodiversity net gain (calculated using the approved Biodiversity Metric 3.0[3]) a mandatory requirement for all major developments requiring planning consent under the provisions of the Town and Country Planning Act 1990. However, this mandatory requirement does not come into force until Autumn 2023.

2.5 For the purposes of this report biodiversity net gain calculation has been determined using Biodiversity Metric 3.0. The calculation is described and summarised in Sections 3 and 4, and screen shots of the Biodiversity Metric 3.0 spreadsheets are provided in Appendix 1. The full Biodiversity Metric 3.0 spreadsheet calculation is provided as a separate document.

2.6 It is important to recognise that a biodiversity net gain assessment based on the approved metric is a calculation of the value of habitats. It does not take account of species directly albeit the value ascribed to habitats is based, in part, on the range of species they support.

2.7 Note: because the site is under 5,000 sqm, and there is no priority habitat present within the development area, the calculation could have been undertaken using the Small Sites Metric - a simplified version of the Biodiversity Metric 3.0. However, the Small Sites Metric has been released as a beta test version and it is still subject to further consultation and refinement. Furthermore, it does not allow the assessor to input condition of existing habitats. This is a reasonable approach for assessing the value of habitats on undeveloped greenfield sites, but in an urban context the condition of small patches of existing habitat on previously developed land can vary hugely depending on the context.

3 Value of existing habitats

3.1 The site is an area of railway land above and adjacent to Camden Road station in the London Borough of Camden. A full description of the site is provided in an accompanying report *Preliminary Ecology Assessment - Camden Highline (Phase 1)*[4].

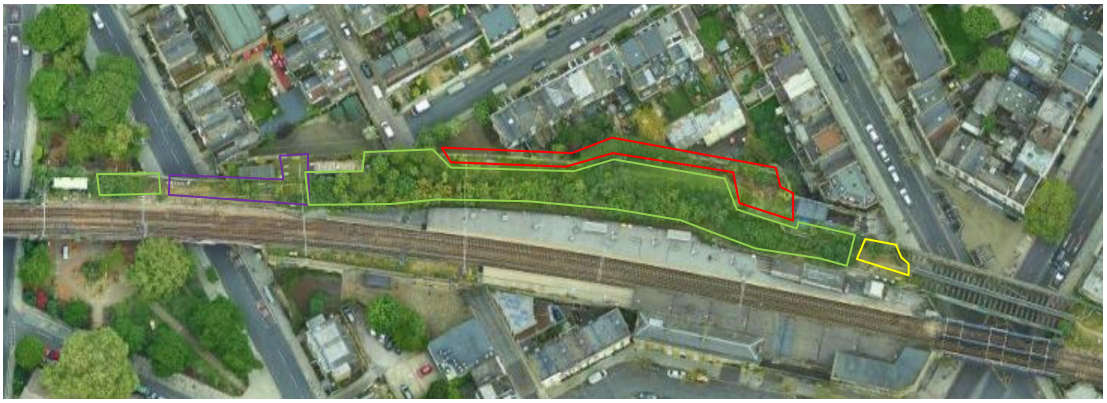
3.2 For the purposes of determining biodiversity net gain the existing habitats on site comprise:

- 1300m^2 of scrub/secondary woodland (mostly of sycamore and buddleia).
- 80m^2 of grassland (false oat grass plus a few common herb species).
- 240m2 of ruderal/ephemeral habitat (cleared ground with a few common herb species).
- 610m^2 of vegetated hard-surface (ivy, traveller's joy and Japanese honeysuckle scrambling over roofs and walls).
- 570m^2 of hard-surfaces, including roof, equipment cabinets and cable ducts.

Note: these are not precise measurements as the boundaries between the different habitat types are blurred.

3.3 These habitats are shown in Fig.1. Green line = scrub/woodland; red line = vegetated hard surface; purple line = ruderal/ephemeral; yellow line = grassland

Fig.1 – existing habitats



3.4 For the purpose of the biodiversity net gain calculation these habitats were translated into habitat types, and their condition, provided in the drop-down menus in Biodiversity Metric 3.0. The habitats available in Biodiversity Metric 3.0 do not cover all habitat types found in the UK, especially habitats found in urban areas. Consequently, assumptions are made and described in the 'Assessor Comments' column in the Biodiversity Metric 3.0 spreadsheet.

3.5 The habitats inputted into the Biodiversity Metric were:

- 1300m^2 of 'Mixed scrub' in 'Fairly Poor' condition
- 80m^2 of 'Other neutral grassland' in 'Fairly Poor' condition

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf
[2] https://www.camden.gov.uk/documents/20142/4820180/Local+Plan.pdf/ce6e992a-91f9-3a60-720c-70290fab78a6
[3] https://www.gov.uk/guidance/biodiversity-metric-calculate-the-biodiversity-net-gain-of-a-project-or-development
[4] London Wildlife Trust (September 2021). Preliminary Ecology Assessment - Camden Highline (Phase 1)

- 240m^2 of 'Ruderal/Ephemeral' in 'Fairly Poor' condition
- 610m^2 of 'Ground-based green wall' in 'Poor' condition
- 510m^2 of 'Developed land; sealed surface' [condition n/a]

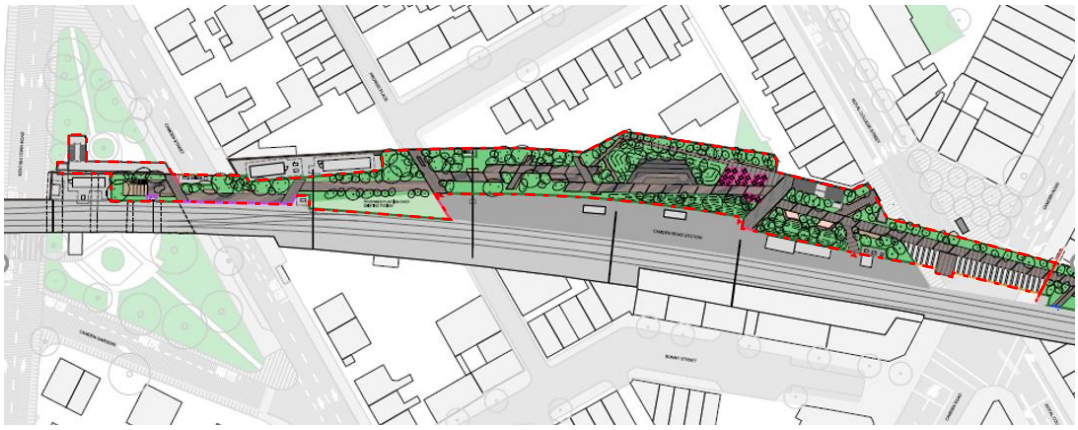
3.6 These generate a total of 0.85 biodiversity units, which is the baseline biodiversity value of the existing habitats on site.

4 Value of proposed habitats

4.1 The proposal is to create a new naturalistic landscape in this currently inaccessible part of the railway corridor to create a new accessible linear park. This will necessitate replacing most of the existing habittas on site with a planted, designed landscape comprising an intimate mix of shrubs and trees with habitats mimicking the existing ephemeral and ruderal habitats mixed with more curated horticultural planting.

4.2 There is currently no detailed planting specification, but the shrubs and trees would include a mix of native species, cultivars of native species, and ornamental shrubs bearing spring flowers and winter berries, with an understorey and glades of suitable native flowering plants and horticultural species beneficial for wildlife. An indicative layout of the new landscape is shown in Figure 2.

Fig.2 – proposed Phase 1 works



4.3 The total area of new planting is 14250m^2. It assumed that the majority, c. 1200m^2, will be trees and shrubs with small areas of tall herbs covering an area of 250m^2 in total. Assumptions

4.4 The habitats inputted into the Biodiversity Metric were:

- 1200m^2 of 'Mixed scrub' in 'Fairly Good' condition.
- 250m^2 of 'Tall herb communities' in 'Moderate' condition.
- 1350m^2 of 'Developed land; sealed surface' [condition n/a]

4.5 The improved condition of these habitats in comparison to existing habitats is based on an assumption that there will be significantly greater structural and species diversity and these habitats will be maintained to high standard with ecological objectives in mind.

4.6 These will generate a total of 0.98 biodiversity units, which is the projected biodiversity value of the site after development.

5 Result of BNG evaluation

5.1 Biodiversity gains or losses are determined by subtracting the baseline number of biodiversity units from the post-development number of biodiversity units and expressing this as a percentage change.

0.98 - 0.85 = 0.15 (x 100) = 15% Biodiversity Net Gain

5.2 It is important to note that the actual difference between the baseline biodiversity value and the projected biodiversity value is just 0.15 biodiversity units, which is a negligible change in real terms. It is widely recognised that the outcome of a biodiversity net gain calculation on a small site with low value existing habitat can vary significantly as the main determining factor that influences the calculation is the decisions and assumptions made about the condition of existing and proposed habitats.

5.3 On Phase 1 of the Camden High Line the existing habitats are considered to be in 'Poor' or 'Fairly Poor' condition as they are dominated by a handful of species (including invasive non-natives) and structural diversity is poor as management is limited to cutting or strimming required to maintain safe access to rail-side infrastructure and/or to prevent encroachment of vegetation onto the operational rail corridor.

5.4 The proposed new habitats are considered to achieve 'Fairly Good' or 'Moderate' condition because the objective will be to significantly improve species and structural diversity and to select species that will provide better foraging habitat for a range of species by selecting species that provide berries or seeds or good sources of nectar. Furthermore, the newly created habitats will be managed and curated to a high standard and for the long-term.

6 Conclusions

6.1 The biodiversity net gain calculation derived from Biodiversity Metric 3.0 indicates that the proposal will deliver a 15% biodiversity net gain. However, the actual net gain in terms of biodiversity units is just 0.15, which is a minor increase.

6.2 Nevertheless, the Biodiversity Metric 3.0 calculation does not take into account other potential ecological enhancements such as the provision or artificial nest sites for birds, roosting sites for bats, and other features such as bee-posts or insect hibernacula which will provide new opportunities for a range of invertebrate species. Nor does it take into account the possibility that through proactive site management additional measures can be implemented such as supplementary feeding of birds (particularly during the winter months) or the provision of a water source which would be of particular value during the summer months.

6.3 Furthermore, Biodiversity Metric 3.0 does not take into account the social benefits of improving access to nature. The proposal aims to create a high-quality accessible naturalistic landscape in a highly urbanised environment, which can also act as a catalyst for further improvements within the surrounding area.

APPENDIX 1

Screenshots of Biodiversity Metric calculations

Headline results

Camden High Line (Phase 1)

Headline Results

Return to results menu

On-site baseline	*Habitat units*	0.85
	Hedgerow units	0.00
	River units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.98
	Hedgerow units	0.00
	River units	0.00
On-site net % change (Including habitat retention, creation & enhancement)	*Habitat units*	15.19%
	Hedgerow units	0.00%
	River units	0.00%
Off-site baseline	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	0.13
	Hedgerow units	0.00
	River units	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	15.19%
	Hedgerow units	0.00%
	River units	0.00%

Habitat baseline

Camden High Line (Phase 1)

A-1 Site Habitat Baseline

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Ref	Habitats and areas: Broad habitat	Habitat type	Area (hectares)	Distinctiveness: Distinctiveness	Score	Condition	Score	Strategic significance: Strategic significance	Strategic significance	Strategic Significance multiplier	Suggested action to address habitat losses	Ecological baseline: Total habitat units	Retention category biodiversity value: Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area lost	Units lost	Bespoke compensation agreed for unacceptable losses	Comm: Assessor comments
1	Heathland and shrub	Mixed scrub	0.13	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required	0.52	0	0	0.00	0.00	0.13	0.52		Current habitat dominated by sycamore with frequent buddleia, plus tree of heaven. Understorey dominated by ivy. Managemenet limited to occassional cutting to prevent overgrowth onto platform and other railway infrastructure.
2	Grassland	Other neutral grassland	0.01	Medium	4	Fairly Poor	1.5	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required	0.06	0	0	0.00	0.00	0.01	0.06		Very small are dominated by false oat-grass. Occassionally cutt to prevent scrub encrouchment.
3	Sparsely vegetated land	RuderalEphemeral	0.044	Low	2	Fairly Poor	1.5	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required	0.13	0	0	0.00	0.00	0.04	0.13		Small patch and not species rich. Maintaied by regular cutting.
4	Urban	Ground based green wall	0.071	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required	0.14	0	0	0.00	0.00	0.07	0.14		Ivy, travellor's joy and Japnese honeysuckle scrambling over existing structures.
5	Urban	Developed land; sealed surface	0.092	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00	0.035	0	0.00	0.00	0.06	0.00		

Proposed habitats

Camden High Line (Phase 1)

A-2 Site Habitat Creation

Condense / Show Columns | Condense / Show Rows | Main Menu | Instructions

Check Areas - Area of development footprint and habitat creation exceeds the area of habitats lost

Post development/ post intervention habitats																						
Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness: Distinctiveness	Score	Condition	Score	Strategic significance: Strategic significance	Strategic significance	Strategic position multiplier	Temporal multiplier: Standard time to target condition/years	Habit created in advance/years	Delay in starting habitat creation/years	Standard or adjusted time to target condition	Final time to target condition/years	Final time to target multiplier	Difficulty multipliers: Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied	Habitat units delivered	Com: Assessor comments
Heathland and shrub	**Mixed scrub**	0.12	Medium	4	Fairly Good	2.5	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	7	0	0	Standard time to target condition applied	7	0.779	Low	Standard difficulty applied	Low	1	0.94	Proposed planting assumed to be structurally diverse with diverse underplanting, and well maintained.
Grassland	**Tall herb communities**	0.025	High	6	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	20	0	0	Standard time to target condition applied	20	0.490	High	Standard difficulty applied	High	0.33	0.05	Assumed to be mis attractive to pollinators, and well-maintained.
Urban	**Developed land; sealed surface**	0.105	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	0	0	Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Medium	0.67	0.00	

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