

NHDC DECARBONISATION PROJECT- HITCHIN SWIMMING AND FITNESS CENTRE

Biodiversity Net Gain Assessment

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Prepared for:
Willmott Dixon Construction Ltd on behalf of North Hertfordshire District Council

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1 INTRODUCTION

1.1 Purpose and scope of this report

- 1.1.1 RPS was commissioned by Willmott Dixon Construction Ltd on behalf of North Hertfordshire District Council (NHDC) to undertake a Biodiversity Net Gain (BNG) assessment of a parcel of land, located at Hitchin Swimming and Fitness Centre, Fishponds Road, Hitchin SG5 1HA, as part of the NHDC Decarbonisation Project.
- 1.1.2 The BNG Assessment is in support of a planning application. The proposals are for decarbonisation works, comprising the introduction of external rendering, a new Air Source Heat Pump (ASHP), substation, photovoltaic panels and hard and soft landscaping.
- 1.1.3 RPS undertook the UK Habitat (UKHab) Survey in 2024, full details of which can be found in the Preliminary Ecological Appraisal (RPS, 2025a).
- 1.1.4 This report addresses Biodiversity Net Gain (BNG) for the project and provides:
 - Details of the UK Habitat Survey Map;
 - Assessment of the baseline (pre-development) ecological value; and
 - Assessment of the post-development ecological value.

1.2 Biodiversity Net Gain and Methods

- 1.2.1 Biodiversity Net Gain is defined in Baker *et al* (2019)¹ as:
"Development that leaves biodiversity in a better state than before"
- 1.2.2 The requirement for developments to seek to achieve BNG arises from the National Planning Policy Framework (NPPF), which states in Para. 193 (d) that:
'When determining planning applications, local planning authorities should apply the following principles: ...opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity...'
- 1.2.3 There is no single set method for quantifying the assessment of BNG, but one method is the use of biodiversity calculators to assess the biodiversity value of habitats pre- and post-development based on habitat type, distinctiveness and condition.
- 1.2.4 A biodiversity index is derived for the baseline and for the proposed development, and BNG is considered to be achieved where an increase in value is delivered (on or offsite), and where habitats of a higher value are not replaced exclusively with habitats of a lower value.
- 1.2.5 Defra made available its beta test update of its BNG assessment tool in July 2021 and updated to Statutory Version in December 2023 and updated July 2024. This tool has been used for the assessment in this report.

Condition Assessment

- 1.2.6 Using the data collected from the UKHab Survey, a habitat condition assessment was undertaken for the habitats present within the project boundary. The appropriate 'condition sheet' was first

r, J., Hoskins, R. & Butterworth, T. (2019). *Biodiversity Net Gain – good practice principles for development*. Ciria, London.

selected via the Table TS1-1a in the technical supplement provided in the Biodiversity Metric 4.0 - Technical Annex 1: Condition Assessment Sheets and Methodology (Panks, *et al.*, 2023).

- 1.2.7 The condition sheet was then used to assess the individual habitats by comparing how they scored against pre-set condition assessment criteria. The criteria describe what components are needed for the habitat to be of good, moderate or poor value.
- 1.2.8 Each habitat was scored the following:
- 1 – Poor;
 - 2 – Moderate; and
 - 3 – Good.
- 1.2.9 The calculator allows these to be further divided and provides categories for fairly good and fairly poor. The ecologist undertaking the assessment used their professional judgement, considering the habitat condition assessment criteria, to decide when it was suitable to use these categories.
- 1.2.10 It should be noted that some habitats with low or no ecological value are given a fixed score and do not need assessing.

2 PRE-DEVELOPMENT HABITATS

2.1 UK Habitat Survey

- 2.1.1 The UK Habitat Survey of the site was undertaken in September 2024. The survey was conducted by RPS Consultant Ecologist, Toni Winbourne.
- 2.1.2 The habitats are described in turn, with specific reference to guidance on habitat conditions, and are mapped in **Figure 1**.

2.2 Results: Pre-development habitats (on-site)

Modified Grassland – g4

- 2.2.1 Mown modified grassland was present on the western side of the site. Species present included cock's foot (*Dactylis glomerata*), perennial rye (*Lolium perenne*), yarrow (*Achillea millefolium*), mallow (*Malva sp.*), hawkweed (*Hieracium sp.*), white clover (*Trifolium repens*), and greater plantain (*Plantago major*).
- 2.2.2 This would be classified as Modified Grassland *poor* condition, failing to meet the following criteria, including essential criteria to achieve moderate condition:
- There are 6-8 vascular plant species per m² present, including at least 2 forbs. Note - this criterion is essential for achieving Moderate or Good condition; and
 - Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.

Tree – 200

- 2.2.3 A medium (>30 cm to ≤60 cm) sized Norway maple *Acer platanoides* and an Italian alder *Alnus cordata* are present within modified grassland within the site.
- 2.2.4 These would be classified as Urban Tree *moderate* condition, failing to meet the following criteria:
- The tree is a native species (or at least 70% within the block are native species);
 - The tree is mature (or more than 50% within the block are mature); and
 - Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.

Suburban mosaic of developed and natural surface, vegetated garden – u1d.828

- 2.2.5 This included vegetated gardens bordering the building and Elmside Walk on the western extent of the site.
- 2.2.6 This would be classified as Vegetated Garden, a condition assessment of this habitat type is not required in accordance with the Statutory Biodiversity Metric Condition Assessments, being of a low value, by default.

Non-native ornamental hedgerow – h2b

- 2.2.7 A hedgerow was present on the northeastern boundary of the site. The hedgerow was dominated by ornamental *Ligustrum sp.*

- 2.2.8 This would be classified as Non-native and ornamental hedgerow, a condition assessment of this habitat type is not required in accordance with the Statutory Biodiversity Metric Condition Assessments, being of a low value, by default.

Building – u1b5

- 2.2.9 The site contains two buildings both of which are constructed with brick and have tiled, gable style roofing. The buildings are both single storey and are in relatively good condition.
- 2.2.10 This would be classified as Developed Land; Sealed Surface, a condition assessment of this habitat type is not required in accordance with the Statutory Biodiversity Metric Condition Assessments, being of very low value, by default.

Artificial unvegetated; unsealed surface – u1c

- 2.2.11 A large area of the site comprised areas of paving and gravel.
- 2.2.12 This would be classified as Artificial Unvegetated, Unsealed Surface, a condition assessment of this habitat type is not required in accordance with the Statutory Biodiversity Metric Condition Assessments, being of a low value, by default.

Developed Land; sealed surface – u1b

- 2.2.13 Hardstanding is present in the northeastern portion of the site.
- 2.2.14 This would be classified as Developed Land; Sealed Surface, a condition assessment of this habitat type is not required in accordance with the Statutory Biodiversity Metric Condition Assessments, being of very low value, by default.

3 POST-DEVELOPMENT HABITATS

- 3.1.1 This section of the report looks at the habitats which are to be created during the construction phase of the development and provides reasoning as to their habitat classification and condition category, as was completed for the pre-development habitats.
- 3.1.2 The habitats described below are in accordance with the landscape planting plan (RPS, 2025b) in **Figure 2**.
- 3.1.3 Several habitats are not awarded a habitat condition, owing to their inherently low/very low ecological value, including
- Ornamental hedgerow;
 - Introduced shrub;
 - Artificial unvegetated, unsealed surface; and
 - Developed land, sealed surface.
- 3.1.4 These habitats are not discussed below.
- 3.1.5 The development proposals used in the calculations are from the NHDC Decarbonisation Sketch Site Plan P04 (Saunders Boston Architects, 2025).

Mixed Scrub

- 3.1.6 An area of approx. 152 m² of modified grassland will be enhanced to mixed scrub.
- 3.1.7 As greater than three condition assessment criteria will be achieved, the condition has been assigned as 'moderate' (**Table 1**). This must be met within 5 years in accordance with The Statutory Biodiversity Metric Calculation Tool.
- 3.1.8 The mixed scrub will consist of native species and provide suitable foraging and nesting space for invertebrates, birds and small mammals.

Table 1 Future mixed scrub habitat condition assessment

Condition Assessment Criteria		Criterion passed (Yes or No)
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). - At least 80% of scrub is native, - There are at least three native woody species, - No single species comprises more than 75% of the cover (except hazel (<i>Corylus avellana</i>), common juniper (<i>Juniperus communis</i>), sea buckthorn (<i>Hippophae rhamnoides</i>) or box (<i>Buxus sempervirens</i>), which can be up to 100% cover).	Yes
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	Yes
C	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of suboptimal condition ⁶ make up less than 5% of ground cover.	Yes

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D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	No
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E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	No
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Passes 5 criteria Good (3)

Passes 3 or 4 criteria Moderate (2) X

Passes 2 or fewer criteria Poor (1)

Small Native Urban Trees

3.1.9 Thirteen native small urban trees (stem diameter breast height >7.5 cm) are proposed within the landscaping plan for the development, in the west of the site. Utilising the urban tree calculator, small trees are represented by a measure of 0.0529 ha (excluded from total area calculation).

3.1.10 As greater than three condition assessment criteria will be achieved, the condition has been assigned as 'moderate' (**Table 2**). This must be met within 27 years in accordance with The Statutory Biodiversity Metric Calculation Tool.

Table 2. Future urban tree habitat condition assessment

Condition Assessment Criteria		Criterion passed (Yes or No)
A	The tree is a native species (or at least 70% within the block are native species).	Yes
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
C	The tree is mature (or more than 50% within the block are mature).	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.	No
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes
Passes 5 or 6 criteria Good (3)		
Passes 3 or 4 criteria Moderate (2)		X
Passes 2 or fewer criteria Poor (1)		

4 CONCLUSIONS / SUMMARY

- 4.1.1 The site, pre-development comprised a number of habitats, of varying quality including modified grassland of poor condition, urban trees of moderate condition, non-native ornamental hedgerow, vegetated garden, and developed land/unvegetated unsealed areas of very low quality.
- 4.1.2 Considering all of the above, the pre-development score for the site is calculated to be **0.57 habitat units** and **0.02 hedgerow units**.
- 4.1.3 As part of the ongoing development of the scheme, the mitigation hierarchy has been followed as to ensure that biodiversity impacts are minimised as much as possible.
- 4.1.4 **Avoid:** The habitats of highest value have been retained and will be enhanced and restored. For example, the trees, scrub and hedgerows surrounding the site within the site ownership boundary have been excluded from the red line of the proposals.
- 4.1.5 **Minimise:** In order to minimise the impact of biodiversity loss as much as possible, vegetation removal required for works has been minimised as much as feasible.
- 4.1.6 **Mitigate:** In order to mitigate for the loss of pre-development habitats, native mixed scrub, introduced shrub and native trees will be planted within the post-development scheme.
- 4.1.7 **Offset:** Based on all of the above, the scheme meets the minimum requirement of +10% BNG, and so, at this time, no offsetting has been considered.
- 4.1.8 The final BNG score for the site a gain of **+0.07 habitat units (or +11.45%)** and **<+0.01 hedgerow units (or +15.24%, with the trading rules satisfied)**.

REFERENCES

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FIGURES



Figure 1 Pre-development habitat plan

Figure 2 Landscape planting plan (RPS, 2025b)

