



Brighter strategies
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Client: Notting Hill Home Ownership Ltd (NHHO)

Project: St Clare Business Park

Report: Biodiversity Impact Assessment

QUALITY ASSURANCE

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1.0 EXECUTIVE SUMMARY

Greengage Environmental Ltd was commissioned by Notting Hill Home Ownership Ltd (NHHO) to undertake a Biodiversity Net Gain Assessment of a site known as St Clare Business Park in Hampton Hill, London Borough of Richmond upon Thames.

This document is a report of this survey and has been produced to support a planning submission for the site which seeks the demolition of existing buildings and erection of 1no. mixed use building between three and five storeys plus basement in height, comprising 98no. residential flats (Class C3) and 1,172sq.m of commercial floorspace (Class E); 1no. three storey building comprising 893sq.m of commercial floorspace (Class E); 14no. residential houses (Class C3); and, associated access, external landscaping and car parking.

The assessment aimed to quantify the predicted change in ecological value of the site in light of the proposed development to assess compliance against local and national planning policy.

The survey area extends to approximately 0.9 hectares and comprises occupied and unoccupied office blocks and warehouses at the St Clare Business Park. The majority of the assessment site footprint therefore comprised of buildings and hardstanding. Other habitats at the site include scattered trees, introduced shrubs, and small parcels of amenity grassland.

Proposed habitat creation includes a biodiverse green roof, introduced shrub and neutral grassland. The development seeks to retain 0.1913 ha of street trees.

The proposals stand to result in a net gain of 1.42 biodiversity units associated with area based habitats compared with pre-development value. This equivalent to a total net increase of 69.04% in ecological value, exceeding the 10% target.

Habitat enhancement recommendations have been given to further increase the ecological value of the scheme.

Detail relating to the proposed ecological compensation and enhancement actions in relation to habitat creation and management could be provided within an Ecological Management Plan for the site which could be secured through planning condition. Should these recommendations be adhered to, the proposals stand to be compliant with legislation and current planning policy.

2.0 INTRODUCTION

Greengage was commissioned to undertake a Biodiversity Impact Assessment by Notting Hill Home Ownership Ltd (NHHO) of a site known as St Clare Business Park in Hampton Hill, London Borough of Richmond upon Thames.

This document is a report of this assessment and has been produced to support a planning submission for the site which seeks the demolition of existing buildings and erection of 1no. mixed use building between three and five storeys plus basement in height, comprising 98no. residential flats (Class C3) and 1,172sq.m of commercial floorspace (Class E); 1no. three storey building comprising 893sq.m of commercial floorspace (Class E); 14no. residential houses (Class C3); and, associated access, external landscaping and car parking.

The National Planning Policy Framework (NPPF) states that ‘all plans should identify and pursue opportunities for securing measurable net gains for biodiversity’. Additionally, the Richmond Local Plan (2018) states that ‘major developments are required to deliver net gain for biodiversity, through incorporation of ecological enhancements’.

This assessment therefore seeks to quantify the change in ecological value on site in light of development proposals.

2.1 SITE DESCRIPTION

The survey area extends to approximately 0.9 hectares and is centred on National Grid Reference TQ 14191 70890, OS Co-ordinates 514191, 170890.

The site contains ten buildings and surrounding hardstanding, which can be accessed from Holly Road from the south and Windmill Road from the north.

The site is located in Hampton Hill, approximately 100m west of the High Street. The assessment site consists of office buildings and warehouses, surrounded by associated landscaping and car parking.

The site is bound to the west by the Shepperton branch railway line, by residential properties to the north and south, and mixed-use developments, including commercial and residential, to the east.

Open green space in the area includes Bushy Park, which is 100m to the east, a recreation ground, Fulwell golf club and a network of private gardens and street trees. Blue links include the nearby Longford River and the River Thames.

3.0 METHODOLOGY

3.1 BIODIVERSITY METRIC

To calculate the ecological value of the pre- and post-development site, the Natural England Metric 3.1 methodology was utilised, following best practice guidance from Natural England^{1,2}, and joint guidance from CIEEM, IEMA and CIRIA³.

This metric uses Biodiversity Units as a proxy for the ecological value of area of linear based habitats. The areas of each habitat parcel are measured, with each parcel assigned a 'Distinctiveness' and 'Condition' score. Distinctiveness is a default score for the habitat classification, representing its inherent ecological value, whereas condition refers to the state each parcel is in relative to predetermined set of criteria outlined in the supplementary Biodiversity Metric 3.1 guidance.

For post-development habitat areas, additional multipliers are applied taking into account the time taken to reach maturity and difficulty of creation of the habitats, and whether the habitat creation is in a strategically beneficial location.

An assessment of the predicted change in ecological value is undertaken comparing the Biodiversity Units and assessing percentage change. Changes in broader habitat types (for example, 'Urban', 'Woodland' and 'Grassland' habitats) are also tracked, and trading habitats is discouraged unless specifically targeted within a local strategy. Trading down of habitats is not permitted.

3.2 BASELINE CALCULATION

To calculate pre-development Biodiversity Units, data collected during a Preliminary Ecological Appraisal (PEA) undertaken by Greengage on 3rd May 2022 was assessed (doc ref: 551024GA15Jun22DV01_PEA.docx). Areas of each habitat type were taken from the Phase 1 Habitat Map (Appendix A) and data relating to the condition of habitat parcels was collected in the field.

Additionally, to calculate the Biodiversity Units associated with trees on site, stem diameters of each tree were used to assign each tree a rating of 'small', 'medium' or 'large', in line with the Natural England BNG User Guide. The rating corresponds to an area value to be used. Default distinctiveness and condition scores are given.

3.3 PROPOSED DEVELOPMENT CALCULATIONS

The proposed development seeks the demolition of existing buildings and erection of 1no. mixed use building between three and five storeys plus basement in height, comprising 98no. residential flats (Class C3) and 1,172sq.m of commercial floorspace (Class E); 1no. three storey building comprising 893sq.m of commercial floorspace (Class E); 14no. residential houses (Class C3); and, associated access, external landscaping and car parking.

The survey area comprises occupied and unoccupied office blocks and warehouses at the St Clare Business Park. Other habitats at the site include scattered trees, introduced shrubs, and small parcels of

amenity grassland. The majority of habitats on site will need to be removed to facilitate the proposed development.

Drawings of the proposed development used for this assessment were:

- 3522-901 (P11) Landscape Masterplan;
- 3522-902 (P2) Planting Plan (Appendix A); and
- 3522-903 (P3) Tree Retention and Removal Plan.

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

- Bat Survey Report (Greengage, 2018, ref: 551024dpSept19FV01_Bats)
- File Note summarising findings from a site visit on 3rd October 2019 (Greengage, 2019, ref: 551024dpOct19FV01_File_Note)
- Updated Bat Activity Survey (Greengage, July 2020, ref: 551024dp14Jul20FV02_Bat_Activity)
- Updated PEA report (ref: 551024GA15Jun22DV01_PEA.docx).

For calculation of the baseline, areas of each habitat type were measured from this plan and targeted condition scores used, taking into account the likely future use of each area.

3.4 COMPETENCIES

Georgia Alfreds, who undertook this assessment and wrote this report, has a degree in Geography (BSc Hons), an MSc in Environmental Biology: Conservation and Resource Management and is an Associate member of CIEEM with 7 years' experience in ecological survey and assessment.

Paul White, who reviewed this report, has a Bachelor's degree in Marine Biology (BSc Hons), a Natural England Great Crested Newt Licence (2018-38559-CLS-CLS) and Dormouse Licence (2020-44691-CLS-CLS), and is an Associate member of CIEEM. Paul has over 15 years' experience in ecological surveying and has undertaken and managed numerous ecological surveys and assessments.

This report was written by Georgia Alfreds and reviewed and verified by Paul White who confirms in writing (see the QA sheet at the front of this report) that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and
- Avoids invalid, biased and exaggerated statements.

3.5 CONSTRAINTS

The assessment methodology does not incorporate ecological features beyond area and linear based habitats. The potential for the site to support protected species, for example, is not captured by this

assessment. As such this report should be read in conjunction with all other ecological reports for the site. The mitigation hierarchy in relation to protected and notable habitats and species must be followed. This report should accordingly be read in conjunction with the PEA and any other appropriate protected species surveys.

The BNG assessment at this stage is predictive in nature. To ensure delivery of BNG, requirements outlined within this report must be adhered to, and a rigorous programme of monitoring and maintenance must be implemented.

4.0 RESULTS

4.1 BASELINE CONDITIONS

The baseline biodiversity value of the site is calculated to be 2.06 biodiversity units. A breakdown of this calculation is provided in Table 4.1:

Table 4.1 Baseline Biodiversity Units

Broad Habitat	Habitat Type	Area (Hectares)	Distinctiveness	Condition	Biodiversity Units
Urban	Urban Tree (Scattered Trees)	0.2401	Medium	Moderate	1.92
Grassland	Modified grassland (Amenity Grassland)	0.009	Low	Moderate	0.04
Sparsely vegetated land	Ruderal/Ephemeral	0.002548	Low	Moderate	0.01
Urban	Introduced shrub	0.045718	Low	Condition Assessment N/A	0.09
Urban	Developed land; sealed surface (Buildings and hardstanding)	0.799234	V.Low	N/A - Other	0.00
				TOTAL	2.06

Assessment Criteria for the above habitats is given in Appendix C.

Mixed Scattered Trees (Urban - Urban Trees)

The scattered trees on site have been assessed using the condition sheet for urban trees. Species include Norway maple (*Acer platanoides*), a walnut (*Cuprocyparis leyland*) and an elder (*Sambucus nigra*). Other species recorded on site include leyland cypress (*Cuprocyparis leylandii*), Cotoneaster tree (*Cotoneaster frigidus 'Cornubia'*), pear (*Pyrus calleryana 'chanticleer'*), sycamore (*Acer pseudoplatanus*) and goat willow (*Salix caprea*). Smaller trees include cherry (*Prunus avium*), blackthorn (*Prunus spinosa*) and holly (*Ilex aquilifolium*). A number of large specimens bordering the railway include pedunculate oak (*Quercus robur*) and Leyland cypress (*Cupressus x leylandii*).

More than 70% of the trees are native, however there are gaps between them of more than 10%, failing criterion 2. The trees are semi-mature but less than half are mature or veteran. There is no evidence of adverse anthropogenic impacts on the tree health, but there is no apparent management regime in

place. The majority of trees on site are immediately adjacent to other vegetation, passing criterion 6. Therefore, the trees on site have passed 3 of the available 6 criterion and are assessed as 'moderate'.

Amenity Grassland (Grassland-Modified Grassland)

The amenity grassland on site has been assessed using the grassland (low distinctiveness) condition sheet. Species included perennial rye-grass (*Lolium perenne*), annual meadow-grass (*Poa annua*), lesser celandine (*Ficaria verna*), ground-ivy (*Glechoma hederacea*) and dandelion (*Taraxacum officinalis agg.*) and occasional green alkanet (*Pentaglottis sempervirens*), creeping thistle (*Cirsium arvense*) and creeping buttercup (*Ranunculus repens*). There are fewer than 6-8 species per m² but there is a varied sward height and less than 30% scattered scrub. No physical damage was evident and no bare ground. The cover of bracken was below 20% and although LISI species were present in the grassland, such as green alkanet but these did not make up more than 5% of ground cover, and Schedule 9 invasive species were absent. Therefore, the amenity grassland achieves a score of 'moderate' condition.

Ruderal/ephemeral - sparsely vegetated land (Urban non-priority)

The small parcel of ruderal/ephemeral sparsely vegetated land was assessed using the urban non-priority habitat condition sheet. Species comprised creeping buttercup (*Ranunculus repens*), herb Robert (*Geranium robertianum*), common dog-violet (*Viola riviniana*), hairy brome (*Bromus ramosus*), dandelion (*Taraxacum officinale*), cleavers (*Galium aparine*), white clover (*Trifolium repens*), and locally abundant bluebell (*Hyacinthoides non-scripta*). The vegetation structure was not varied, but there was a diverse range of flowering plant species providing nectar sources for insects and no Schedule 9 invasive non-native species present. Therefore, the ruderal habitat has a 'moderate' condition.

Introduced Shrub (Urban - Introduced Shrub)

No assessment is required for this habitat as the condition is fixed as N/A.

Developed land; sealed surface (Buildings/ Hardstanding)

Conditions have automatically been assigned to the Developed Land; Sealed Surface Urban baseline habitat for buildings and hardstanding.

4.2 PROPOSED SITE LAYOUT

Based on masterplan drawings, the proposed development is predicted to provide 3.48 biodiversity units. This includes 1.53 units from retained trees, and 1.95 units from newly created habitats, as shown in Table 4.2.

Table 4.2 Post-Development Biodiversity Units

Broad Habitat	Habitat Type	Area (Hectares)	Distinctiveness	Condition	Biodiversity Units
Urban	Urban Tree	0.1302	Medium	Poor	0.36
Urban	Developed land; sealed surface	0.4774	V.Low	N/A - Other	0.00
Urban	Biodiverse green roof	0.15344	Medium	Good	0.86
Urban	Introduced shrub*	0.01	Low	Condition Assessment N/A	0.02
Urban	Introduced shrub**	0.0253	Low	Condition Assessment N/A	0.05
Urban	Introduced shrub***	0.0601	Low	Condition Assessment N/A	0.12
Grassland	Other neutral grassland****	0.0598	Medium	Moderate	0.40
Urban	Introduced shrub*****	0.0705	Low	Condition Assessment N/A	0.14
				TOTAL	1.95

*P1 Hedge planting mix

**P2 Ornamental planting mix

***P3 Boundary planting mix

****P4 Species rich mix lawn

*****P5 Podium planting mix

Assessment Criteria for the above habitats is given in Appendix C.

Urban trees - Scattered trees

A total of approximately 32 new small trees are to be planted around the boundaries and through the site, including double gean (*Prunus avium* 'Plena'), field maple (*Acer campestre*), apple (*Malus domestica*), black alder (*Alnus glutinosa*), Japanese maple (*Acer palmatum*), silver birch (*Betula pendula*), common pear (*Pyrus communis*), white mulberry (*Morus alba*), common whitebeam (*Sorbus aria*), sweet gum (*Liquidambar styracilua*) and snowy mespilus (*Amelanchier lamarckii*).

These will be small equating to a total canopy cover area of 0.1302 hectares (ha), using the urban tree calculator built into the Natural England Metric 3.1. The total habitat units include the additional units provided by the retention of street tree habitat, which amounts to 0.48 biodiversity units. The new trees will be a mix of native and non-native species, however native trees do not account for more than 70% of proposed trees. Tree canopy will not be continuous and there will be a limited range of ages with no mature or veteran individuals. It is assumed that there will be no adverse impact on the tree health by anthropogenic activities and no management regime in place to encourage micro habitat sites. Overall, the majority of trees will be immediately adjacent to other vegetation and thus achieving two of the criteria on the condition assessment and therefore urban trees have been given a poor condition.

Developed land; sealed surface (Hardstanding)

Buildings and hardstanding are automatically given 'very low' distinctiveness and do not require a condition assessment - condition N/A Other.

Biodiverse Green Roof

An extensive biodiverse green roof is proposed, measuring 0.15344ha in total. Substrate depth will be between 80-100mm and it will contain PV panels. The roof will take the form of an extensive, substrate-based biodiverse roof in line with best practice guidance (GRO Green Roof Code). These roofs will also provide invertebrate habitat through the presence of sandy piles, log piles, rock piles and water trays, where feasible. The green roofs will provide sedum and wildflower mixes to maximise species diversity. Green roofs will consist of a vegetation mat, which provides an instant greening effect, planted with supplementary plug planting to offer an extra richness and increased biodiversity. Undulating profiles created with a variety of substrate materials will further increase the biodiversity benefits afforded by the green roof, by creating habitats for invertebrates to naturally colonise, however this might not be feasible, considering the PV panels. Lightweight and low maintenance, wind, frost and drought resistant plants are used en masse to include, herbs, ferns, sedums and succulents.

The biodiverse roofs are expected to meet 3 of the 3 condition criteria for urban habitats, and the condition is therefore considered at be 'good'.

Hedge planting mix - (Urban - Introduced Shrub)

Several parcels of hedge planting (P1) are proposed on site, which comprise of burkwood (*Osmanthus x burkwoodii*), common hornbeam (*Carpinus betulus*) and European beech (*Fagus sylvatica* 'Atropurpurea'). Aside from hornbeam, the other two species are non-native to the UK and are only short sections of disconnected hedge parcels, therefore the hedge planting has been categorised as urban-introduced

shrub, as they do not fulfil the requirements of a typical hedgerow habitat. No assessment is required for this habitat as the condition is fixed as N/A.

Ornamental planting - (Urban - Introduced Shrub)

Several parcels of ornamental planting (P2), totalling 253m², are proposed on site, which comprise of autumn moor-grass (*Sesleria autumnalis*), Japanese skimmia (*Skimmia japonica*), snow rush (*Luzula nivea*), Rosemary (*Rosmarinus officinalis*), lavender cotton (*Santolina chamaecyparissus*), Hebe (*Hebe sp.*) The majority of these species are non-native to the UK, therefore the ornamental planting has been categorised as urban-introduced shrub. No assessment is required for this habitat as the condition is fixed as N/A.

Boundary planting mix - (Urban - Introduced Shrub)

Several parcels of boundary planting mix (P3), totalling 601m², are proposed on site, which comprise of box-leaved honeysuckle (*Lonicera pileate*), sweet box (*Sarcococca confusa*), Common sage (*Salvia officinalis*), blue fescue (*Festuca glauca*), pheasant's tail (*Anemantele lessoniana*), common dogwood (*Cornus sanguinea*), Christmas rose (*Heleborus nigra*), Hebe sp., bramble (*Rubus fruticosus*), hawthorn (*Crataegus monogyna*), guelder rose (*Viburnum opulus*), and geranium (*Geranium sp.*) This is a mix of native and non-native herbs with benefit for wildlife however the majority of these species are non-native to the UK, therefore the boundary planting has been categorised as urban-introduced shrub. No assessment is required for this habitat as the condition is fixed as N/A.

Species rich mix lawn - (Grassland - Other Neutral Grassland)

Several parcels of species rich mix lawn (P4), totalling 598m², are proposed on site. Species mix that will be used is a species rich amenity turf e.g WFT-Species Rich 26, which includes grasses such as chewing's Fescue (*Festuca rubra* subsp. *Commutate*), sheep's Fescue (*Festuca ovina*), common Meadow grass (*Poa pratensis*), slender creeping red fescue (*Festuca rubra trichophylla*), dwarf cultivar (*Lolium perenne*) and smaller Cat's Tail (*Phleum bertolonii*). Species also include betony (*Stachys officinalis*), birdsfoot trefoil (*Lotus corniculatus*), black medick (*Medicago lupulina*), common knapweed (*Centaurea nigra*), common sorrel (*Rumex acetosa*), daisy (*Bellis perennis*) and lady's bedstraw (*Galium verum*). This habitat is likely to achieve a 'moderate' condition.

Podium planting mix - (Urban - Introduced Shrub)

Several parcels of podium planting mix (P5), totalling 705m², are proposed on the podium courtyard< on the first floor of Block 1, which comprises of autumn moor-grass (*Sesleria autumnalis*), English lavender (*Lavandula officinalis*), blue fortune (*Agastache*), lamb's-ear (*Stachys byzantina*), greater wood rush (*Luzula sylvestris*), common yarrow (*Achillea millefolium*), bigroot geranium (*Geranium macrorrhizum*). The majority of these species are non-native to the UK, therefore the podium planting has been categorised as urban-introduced shrub. No assessment is required for this habitat as the condition is fixed as N/A.

5.0 EVALUATION AND DISCUSSION

Under these proposals, and in the absence of additional enhancement measures and habitat creation, the development stands to result in a net gain of 1.42 biodiversity units associated with area-based habitats from pre-development levels. This corresponds to a total net increase of 69.04% in ecological value.

The proposals are therefore in compliance with local and national planning policy (see Appendix B), and the BNG Mandate which seeks a 10% uplift in biodiversity units. However, there is scope to provide the following ecological enhancements to further improve the predicted eventual biodiversity value of the site:

- Create a native hedgerow; e.g. by replacing burkwood (*Osmanthus x burkwoodii*) and European beech (*Fagus sylvatica* 'Atropurpurea') with native species such as yew (*Taxus baccata*), retaining the common hornbeam (*Carpinus betulus*).
- Scattered trees:
 - Modify tree specification to include over 70% native trees, as it is currently failing on Criterion 1 for this;
 - By adding log piles, bird/bat boxes to the trees, the condition criteria for scattered trees (Criteria 5) will be assessed differently as the provision of deadwood and cavity provision would allow scoring on this criterion.

Details on habitat enhancement and management to ensure delivery of BNG should be outlined in an Ecological Management Plan (EMP) and detailed landscaping plans, which could be secured through planning condition.

The EMP should provide description of how habitats are to be created and managed for a period of at least 30 years.

6.0 SUMMARY & CONCLUSION

Greengage was commissioned by Notting Hill Home Ownership Ltd (NHHO) to undertake a Biodiversity Impact Assessment a site known as St Clare Business Park in in Hampton Hill, London Borough of Richmond upon Thames, in order to assess the change in ecological value of the site in light of the proposed development.

This report demonstrates that the development proposals will result in a net gain of 1.42 biodiversity units should existing plans be adhered to, equivalent to a 69.04% increase in ecological value and is in compliance with local and is compliant with the BNG Mandate which states a target of 10% net gain in biodiversity.

Although BNG targets are being met, further enhancement recommendations are given, which would allow even greater improvements in biodiversity.

Details on any habitat creation and its ongoing management should be agreed with the Local Planning Authority and described in an EMP (secured by planning condition) for the site.

APPENDIX A SITE PLAN AND HABITAT MAP

St Clare Business Park



- Target Notes
 - Scattered Trees
 - Red Line Boundary
 - Building
- UKHAB**
- g4 - modified grassland
 - u - urban
 - u1b - developed land. sealed surface
 - u1b5 - buildings
 - s - sparsely vegetated land

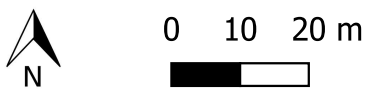


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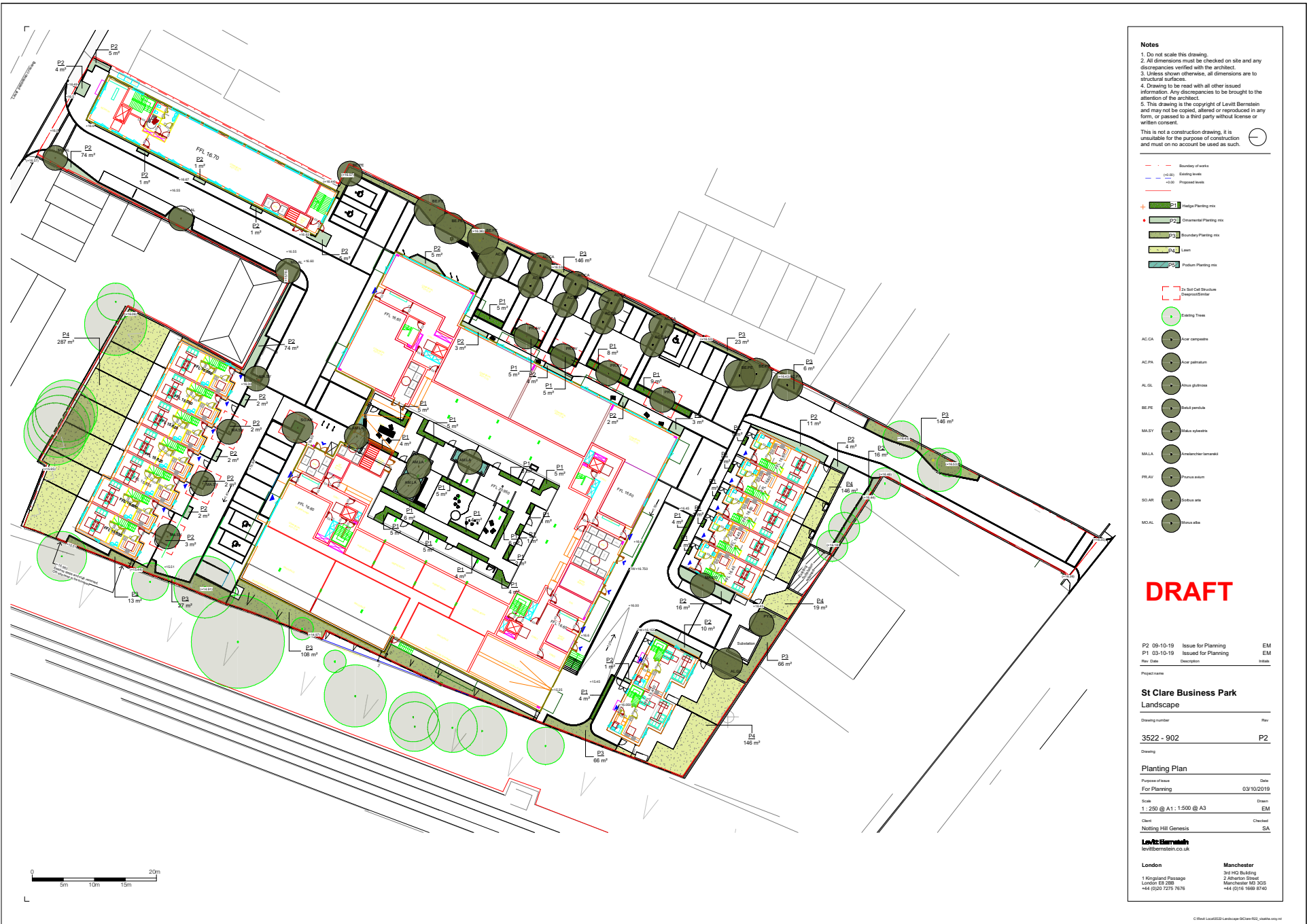
www.greengage-env.com

Fig 1.0 Site Plan and Habitat Map

Project Number 551024
June 2022
Scale 1 to 1100 at A4
Map Data - Google Satellite



APPENDIX B LANDSCAPE PLAN/STRATEGY



Notes

1. Do not scale this drawing.
2. All dimensions must be checked on site and any discrepancies verified with the architect.
3. Unless shown otherwise, all dimensions are to structural surfaces.
4. Drawing to be read with all other issued information. Any discrepancies to be brought to the attention of the architect.
5. This drawing is the copyright of Levitt Bernstein and may not be copied, altered or reproduced in any form, or passed to a third party without license or written consent.

This is not a construction drawing. It is unsuitable for the purpose of construction and must on no account be used as such.

- Boundary of works
- (+0.00) Existing levels
- (+0.00) Proposed levels
- P1 Hedge Planting mix
- P2 Ornamental Planting mix
- P3 Boundary Planting mix
- P4 Lawn
- P5 Paddock Planting mix
- D1 Self-Guided Structure
- D2 Drop-off/Collection
- D3 Parking Trees
- AC.CA Tree canopy
- AC.PA Tree palmatum
- AL.GL Tree glaberrima
- BE.PE Tree pedunculata
- MALV Tree spicata
- MALLA Tree lactorisbornalis
- PR.AL Tree salix
- SO.AR Tree alba
- MO.AL Tree alba

DRAFT

P2 09-10-19	Issue for Planning	EM
P1 03-10-19	Issued for Planning	EM
Rev. Date	Description	Initials

Project name

St Clare Business Park
Landscape

Drawing number	Rev
----------------	-----

3522 - 902 P2

Planting Plan

Project name	Drawn
For Planning	03/10/2019

Scale	Drawn
1 : 250 @ A1 : 1:500 @ A3	EM

Client	Checked
Notting Hill Genesis	SA

Levitt Bernstein
levittberstein.co.uk

London
1 Kingsland Passage
London E8 3BB
+44 (0)20 7275 7676

Manchester
3rd HO Building
2 Arndcliffe Street
Manchester M3 3QS
+44 (0)161 688 8740

APPENDIX C CONDITION ASSESSMENT CRITERIA

The highlighted green text below show what can be achieved for each habitat, as per each condition assessment.

Baseline Habitats

Urban trees - Scattered trees - Urban - Non Priority Habitat Type

Table C.1 Scattered trees - Urban - Non Priority Habitat Type

	Condition Assessment Criteria	Pass?
1	More than 70% of trees are native species	Y
2	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	N
3	More than 50% of trees are mature or veteran	N
4	There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime so the trees retain >75% of expected canopy for their age range and height.	Y
5	Management regime has encouraged micro habitat sites for birds, mammals and insects e.g. presence of deadwood, cavities or loose bark etc.	N
6	Trees are immediately adjacent to other vegetation, and tree canopies are oversailing vegetation beneath.	Y

Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 of 6 criteria	Good (3)
Passes 3 or 4 of 6 criteria	Moderate (2)
Passes 0, 1 or 2 of 6 criteria	Poor (1)

Grassland - Modified Grassland (Amenity Grassland)

Table C.2 Grassland - Modified grassland - Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)

	Condition Assessment Criteria	Pass
1	There must be 6-8 species per m ² . Note - if a grassland has 9 or more species per m ² it should be classified as a moderate distinctiveness grassland habitat type. NB - this criterion is non-negotiable for achieving good condition	N
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Y

	Condition Assessment Criteria	Pass
3	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type	Y
4	Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	Y
5	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens	N
6	Cover of bracken less than 20%	Y
7	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species make up less than 5% of ground cover	Y

Condition Assessment Result	Condition Assessment Score
<ul style="list-style-type: none"> • Passes 6 or 7 of 7 criteria including non-negotiable criterion 7 	Good (3)
<ul style="list-style-type: none"> • Passes 4 or 5 of 7 criteria; OR • Passes 6 of 7 criteria excluding non-negotiable criterion 7 	Moderate (2)
<ul style="list-style-type: none"> • Passes 0, 1, 2 or 3 of 7 criteria 	Poor (1)

Sparsely vegetated land - Ruderal/Ephemeral

Using urban non-priority habitat type condition sheet

	Condition Assessment Criteria	Pass
1	Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than 80% of the total habitat area.	N
2	There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife. NB - To achieve GOOD condition, criterion 2 must be satisfied by native species only (rather than non-natives beneficial to wildlife)	Y
3	Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover)	Y

Condition Assessment Result	Condition Assessment Score
<ul style="list-style-type: none"> • Passes 3 of 3 core criteria; AND • Meets the requirements for good condition within criteria 2 and 3 	Good (3)
<ul style="list-style-type: none"> • Passes 2 of 3 core criteria; OR • Passes 3 of 3 core criteria but does not meet the requirements for good condition within criteria 2 and 3 	Moderate (2)
<ul style="list-style-type: none"> • Passes 0 or 1 of 3 core criteria 	Poor (1)

Urban Introduced Shrub

No assessment required - condition N/A

Urban - Developed Land; Sealed Surface (Buildings and Hard-standing)

Conditions have automatically been assigned to the Developed land; sealed surface Urban baseline habitat.

Post-Development Habitats

Urban trees - Scattered trees - Urban - Non Priority Habitat Type

Table C.3 Scattered trees - Urban - Non Priority Habitat Type

	Condition Assessment Criteria	Pass?
1	More than 70% of trees are native species	N
2	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	N
3	More than 50% of trees are mature or veteran	N
4	There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime so the trees retain >75% of expected canopy for their age range and height.	Y
5	Management regime has encouraged micro habitat sites for birds, mammals and insects e.g. presence of deadwood, cavities or loose bark etc.	N
6	Trees are immediately adjacent to other vegetation, and tree canopies are oversailing vegetation beneath.	Y

Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 of 6 criteria	Good (3)

Condition Assessment Result	Condition Assessment Score
Passes 3 or 4 of 6 criteria	Moderate (2)
Passes 0, 1 or 2 of 6 criteria	Poor (1)

Urban - Developed Land; Sealed Surface (Buildings and Hard-standing)

Buildings and hardstanding are automatically given 'very low' distinctiveness and do not require a condition assessment - condition N/A Other.

Extensive Biodiverse Green Roof

Table C.4 Intensive green roof, using condition sheet for Urban non-priority habitat

	Condition Assessment Criteria	Pass
1	Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than 80% of the total habitat area.	Y
2	There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife. NB - To achieve GOOD condition, criterion 2 must be satisfied by native species only (rather than non-natives beneficial to wildlife).	Y
3	Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover)	Y

Condition Assessment Result	Condition Assessment Score
• Passes 3 of 3 core criteria; AND • Meets the requirements for good condition within criteria 2 and 3	Good (3)
• Passes 3 of 3 core criteria; AND • Meets the requirements for good condition within criteria 2 and 3	Moderate (2)
• Passes 0 or 1 of 3 core criteria	Poor (1)

Urban - Introduced shrub (P1 - Hedge planting mix)

No assessment required - condition N/A

Urban - Introduced shrub (P2 - Ornamental planting mix)

No assessment required - condition N/A

Urban - Introduced shrub (P3 - Boundary planting mix)

No assessment required - condition N/A

Grassland - Other neutral Grassland (P4 - Species rich mix lawn)

Condition Sheet: GRASSLAND Habitat Type (medium, high & very high distinctiveness)

	Condition Assessment Criteria	Pass?
1	The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward	Y
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	N
3	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens	N
4	Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%	Y
5	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.	Y

Condition Assessment Result	Score
Passes 5 of 5 criteria	Good (3)
Passes 3 or 4 of 5 criteria	Moderate (2)
Passes 0, 1 or 2 of 5 criteria	Poor (1)

Urban - Introduced Shrub (P5 - Podium planting mix)

No assessment required - condition N/A

APPENDIX D LEGISLATION AND POLICY

D.1 LEGISLATION

The Environment Act, 2021⁴

The Environment Act, 2021 mandates the requirement for new development in England to deliver a minimum 10% biodiversity net gain (BNG), as measured by the agreed metric (the current relevant version being the Natural England Metric 3.0), secured through planning condition as standard (as per schedule 14 of the Act). Approach to the delivery of BNG must follow the mitigation hierarchy, with avoidance of impact and on-site compensation/gains prioritised, ahead of the use of offsite biodiversity unit offsets, or the purchase of biodiversity credits.

The Act introduces the condition that no development may begin unless a biodiversity net gain plan has been submitted and approved by the local planning authority (LPA).

The Act also amends requirements of the NERC Act, 2006, adding the need to not just conserve, but enhance biodiversity through planning projects. Furthermore, it introduces the need for the LPA to have regard to relevant local nature recovery strategies and relevant species/protected site conservation strategies, when making their decision.

D.2 POLICY

National

National Planning Policy Framework (NPPF)

The National Planning Policy Framework (NPPF) 2021⁵ sets out the Government's planning policies for England, including how plans and decisions are expected to apply a presumption in favour of sustainable development. Chapter 15 of the NPPF focuses on conservation and enhancement of the natural environment, stating plans should 'identify and pursue opportunities for securing measurable net gains for biodiversity'.

It goes on to state: 'if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused'. Alongside this, it acknowledges that planning should be refused where irreplaceable habitats such as ancient woodland are lost..

The London Plan⁶

Policy G1 Green infrastructure

1. London's network of green and open spaces, and green features in the built environment such as green roofs and street trees, should be protected, planned, designed and managed as integrated features of green infrastructure.

2. Boroughs should prepare green infrastructure strategies that integrate objectives relating to open space provision, biodiversity conservation, flood management, health and wellbeing, sport and recreation.
3. Development Plans and Opportunity Area Planning Frameworks should:
 1. identify key green infrastructure assets, their function and their potential function
 2. identify opportunities for addressing environmental and social challenges through strategic green infrastructure interventions.
4. Development proposals should incorporate appropriate elements of green infrastructure that are integrated into London's wider green infrastructure network.

Policy G5 Urban greening

1. Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high-quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage.
2. Boroughs should develop an Urban Greening Factor (UGF) to identify the appropriate amount of urban greening required in new developments. The UGF should be based on the factors set out in Table 8.2, but tailored to local circumstances. In the interim, the Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development. (excluding B2 and B8 uses).
3. Existing green cover retained on site should count towards developments meeting the interim target scores set out in (B) based on the factors set out in Table 8.2.

Policy G6 Biodiversity and access to nature

4. Sites of Importance for Nature Conservation (SINCs) should be protected.
5. Boroughs, in developing Development Plans, should:
 - a. use up-to-date information about the natural environment and the relevant procedures to identify SINCs and ecological corridors to identify coherent ecological networks
 - b. identify areas of deficiency in access to nature (i.e. areas that are more than 1km walking distance from an accessible Metropolitan or Borough SINC) and seek opportunities to address them
 - c. support the protection and conservation of priority species and habitats that sit outside the SINC network, and promote opportunities for enhancing them using Biodiversity Action Plans
 - d. seek opportunities to create other habitats, or features such as artificial nest sites, that are of particular relevance and benefit in an urban context

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- e. ensure designated sites of European or national nature conservation importance are clearly identified and impacts assessed in accordance with legislative requirements.
 6. Where harm to a SINC is unavoidable, and where the benefits of the development proposal clearly outweigh the impacts on biodiversity, the following mitigation hierarchy should be applied to minimise development impacts:
 - a. avoid damaging the significant ecological features of the site
 - b. minimise the overall spatial impact and mitigate it by improving the quality or management of the rest of the site
 - c. deliver off-site compensation of better biodiversity value.
 7. Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain. This should be informed by the best available ecological information and addressed from the start of the development process.
 8. Proposals which reduce deficiencies in access to nature should be considered positively.

Policy G7 Trees and woodlands

1. London's urban forest and woodlands should be protected and maintained, and new trees and woodlands should be planted in appropriate locations in order to increase the extent of London's urban forest – the area of London under the canopy of trees.
2. In their Development Plans, boroughs should:
 - a. Protect 'veteran' trees and ancient woodland where these are not already part of a protected site
 - b. Identify opportunities for tree planting in strategic locations
3. Development proposals should ensure that, wherever possible, existing trees of quality are retained [Category A and B]. If planning permission is granted that necessitates the removal of trees, there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT or another appropriate valuation system. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy.

[London Environment Strategy 2018⁷](#)

The Mayor's Environment Strategy was published in May 2018. This document sets out the strategic vision for the environment throughout London. Although not primarily a planning guidance document, it does set strategic objectives, policies and proposals that are of relevance to the delivery of new development in a planning context, including:

Objective 5.1 Make more than half of London green by 2050

Policy 5.1.1 Protect, enhance and increase green areas in the city, to provide green infrastructure services and benefits that London needs now.

This policy states:

“New development proposals should avoid reducing the overall amount of green cover and, where possible, seek to enhance the wider green infrastructure network to increase the benefits this provides. [...] New developments should aim to avoid fragmentation of existing green space, reduce storm water run-off rates by using sustainable drainage, and include new tree planting, wildlife-friendly landscaping, or features such as green roofs to mitigate any unavoidable loss”.

This supports the ‘environmental net gain’ approach promoted by government in the 25 Year Environment Plan.

Proposal 5.1.1.d The London Plan includes policies to green streets and buildings, including increasing the extent of green roofs, green walls and sustainable drainage.

Objective 5.2 conserving and enhancement wildlife and natural habitats

Policy 5.2.1 Protect a core network of nature conservation sites and ensure a net gain in biodiversity

This policy requires new development to include new wildlife habitat, nesting and roosting sites, and ecologically appropriate landscaping will provide more resources for wildlife and help to strengthen ecological corridors. It states:

“Opportunities should be sought to create or restore priority habitats (previously known as UK Biodiversity Action Plan habitats) that have been identified as conservation priorities in London [and] all land managers and landowners should take BAP priority species into account”.

D.3 LOCAL

London Borough of Richmond Upon Thames - Local Plan (adopted July 2018)

Whilst the draft local plan is in development, the current local plan for Richmond Upon Thames looks ahead to 2033 and identified where the main developments will take place.

Policy LP 12 - Green Infrastructure

Green infrastructure is a network of multi-functional green spaces and green features, which provides multiple benefits for people, nature and the economy.

A. To ensure all development proposals protect, and where opportunities arise enhance, green infrastructure,

the following will be taken into account when assessing development proposals:

- a. the need to protect the integrity of the green spaces and features that are part of the wider green infrastructure network; improvements and enhancements to the green infrastructure network are supported;

- b. its contribution to the wider green infrastructure network by delivering landscape enhancement, restoration or re-creation;
- c. incorporating green infrastructure features, which make a positive contribution to the wider green infrastructure network.

Policy LP 15 - Biodiversity

A. The Council will protect and enhance the borough's biodiversity, in particular, but not exclusively, the sites designated for their biodiversity and nature conservation value, including the connectivity between habitats. Weighted priority in terms of their importance will be afforded to protected species and priority species and habitats including National Nature Reserves, Sites of Special Scientific Interest (SSSI) and Other Sites of Nature Importance as set out in the Biodiversity Strategy for England, and the London and Richmond upon Thames Biodiversity Action Plans. This will be achieved by:

1. 1. protecting biodiversity in, and adjacent to, the borough's designated sites for biodiversity and nature conservation importance (including buffer zones), as well as other existing habitats and features of biodiversity value;
2. 2. supporting enhancements to biodiversity;
3. 3. incorporating and creating new habitats or biodiversity features, including trees, into development sites and into the design of buildings themselves where appropriate; major developments are required to deliver net gain for biodiversity, through incorporation of ecological enhancements, wherever possible;
4. 4. ensuring new biodiversity features or habitats connect to the wider ecological and green infrastructure networks and complement surrounding habitats;
5. 5. enhancing wildlife corridors for the movement of species, including river corridors, where opportunities arise; and
6. 6. maximising the provision of soft landscaping, including trees, shrubs and other vegetation that support the borough-wide Biodiversity Action Plan.

B. Where development would impact on species or a habitat, especially where identified in the relevant Biodiversity Action Plan at London or local level, or the Biodiversity Strategy for England, the potential harm should:

3. firstly be avoided (the applicant has to demonstrate that there is no alternative site with less harmful impacts),
4. secondly be adequately mitigated; or
5. as a last resort, appropriately compensated for.

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