Former Sipson Garden Centre

Biodiversity Net Gain Assessment

VIRTUS Data Centres

Project number: 60749800

October 2026

Delivering a better world

Quality information

Prepared by	Checked by	Verified by	Approved by
BC	SOS	MH	Kach Theeprawat
Senior Ecologist	Senior BNG Consultant	Associate Director of Ecology	Technical Design Lead
Qualifying CIEEM	PISEP	CEcol MCIEEM	RIBA

Revision History

Revision	Revision date	Details	Authorized	Name	Position
1					

Prepared for:

Virtus Data Centres
20 Balderton Street
London
W1K 6TL

Prepared by:

AECOM Limited
12 Regan Way
Chetwynd Business Park
Nottingham NG9 6RZ
United Kingdom

T: +44 (115) 827 8000
aecom.com
© 2026 AECOM Limited.

AECOM Limited ("AECOM") has prepared this report for the sole use of **VIRTUS Data Centres** ("Client") in accordance with the terms and conditions of appointment (**ref no:** AECOM GWLG (121529898) ("the Appointment").

AECOM shall have no duty, responsibility and/or liability to any party in connection with this report howsoever arising other than that arising to the Client under the Appointment. Save as provided in the Appointment, no warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by AECOM.

This report should not be reproduced in whole or in part or disclosed to any third parties for any use whatsoever without the express written authority of AECOM. To the extent this report is reproduced in whole or in part or disclosed to any third parties (whether by AECOM or another party) for any use whatsoever, and whether such disclosure occurs with or without the express written authority of AECOM, AECOM does not accept that the third party is entitled to rely upon this report and does not accept any responsibility or liability to the third party. To the extent any liability does arise to a third party, such liability shall be subject to any limitations included within the Appointment, a copy of which is available on request to AECOM.

Where any conclusions and recommendations contained in this report are based upon information provided by the Client and/or third parties, it has been assumed that all relevant information has been provided by the Client and/or third parties and that such information is accurate. Any such information obtained by AECOM has not been independently verified by AECOM, unless otherwise stated in this report. AECOM accepts no liability for any

inaccurate conclusions, assumptions or actions taken resulting from any inaccurate information supplied to AECOM from the Client and/or third parties.

Table of Contents

1. Introduction 1
1.1 Site Description 1
1.2 Proposed Development 1
1.3 Policy Context 1
1.3.1 National Legislation 1
1.3.2 Local Planning Policy 2
2. Methodology 2
2.1 Baseline Data 2
2.2 Post-Development Data 3
2.3 Strategic Significance 3
2.4 Trading Rules 3
2.5 Application of the BNG Good Practice Principles 3
2.6 Assumptions and Limitations 4
3. Results 4
3.1 Baseline Biodiversity Summary 4
3.2 Post-Development Biodiversity Summary 4
3.3 Summary of Results 4
3.3.1 Trading Rules 5
3.3.1.1 Area Habitats 5
3.3.1.2 Hedgerow Habitats 5
4. Conclusion 5
Appendix A Baseline Habitat Plan 6
Appendix B Post-Development Habitat Plan 7
Appendix C Baseline Habitat Condition Assessments 8
Appendix D Post-Development Habitat Information 9
D.1 Parameters Plan/ Masterplan to UKHab Conversion 9
D.2 Post-Development Target Conditions 10
Appendix E Metric Calculation 11

Tables

Table 1. Summary of Results 4
Table 2. Trading Rules – Area Habitats 5
Table 3. Trading Rules – Hedgerow Habitats 5

1. Introduction

AECOM was commissioned by VIRTUS Data Centres (hereafter referred to as the Client) to undertake a Biodiversity Net Gain (BNG) Assessment for the development of the Former Sipson Garden Centre (hereafter referred to as the Site).

The assessment quantifies the predicted change in biodiversity value resulting from the proposed development by comparing the Site's baseline habitats (pre-development) with its post-development habitats, using the Statutory Biodiversity Metric (the Metric)[1].

This assessment has been prepared to support the outline planning application (all matters reserved except for access) for the construction of a new data centre facility (hereafter referred to as the Proposed Development). The assessment considers habitat loss, retention, enhancement and creation associated with the Proposed Development.

It has been undertaken in accordance with:

- The Statutory Biodiversity Metric;
- BNG Good Practice Principles for Development[2];
- The Environment Act 2021[3]; and
- The Biodiversity Gain (Planning) Regulations 2024[4].

1.1 Site Description

The Site (as shown on the Baseline Habitat Plan, Appendix A) is approximately 6.99 ha in size and comprises predominantly modified grassland surrounding a building, with stands of woodland to the east and bordered with individual trees.

The Site lies within an urban fringe environment in the London Borough of Hillingdon and is bounded to the east by a section of the M4 motorway in the vicinity of Heathrow Airport. A further section of the M4 motorway runs immediately to the north of the site. The western boundary is formed by the A408, from which the site gains vehicular access. A small number of residential properties are located to the south-west of the site, fronting the A408.

1.2 Proposed Development

The Proposed Development (as shown on the Post-Development Habitat Plan, Appendix B) comprises the demolition of existing structures and the construction of a new data centre facility with an anticipated operational capacity of approximately 54MW. The development would provide approximately up to 54,000 sqm of gross internal floorspace, including data halls, administration block, plant, and associated ancillary infrastructure.

The design incorporates opportunities for biodiversity enhancement including species-rich grassland, native tree planting, hedgerow creation, sustainable drainage features and a biodiverse green roof.

1.3 Policy Context

1.3.1 National Legislation

The relevant primary legislation for the statutory framework for biodiversity net gain is principally set out under Schedule 7A (Biodiversity Gain in England) of the Town and Country Planning Act 1990. This legislation was inserted into the 1990 Act by Schedule 14 of the Environment Act 2021 and was amended by the Levelling Up and Regeneration Act 2023. The Biodiversity Gain (Town and Country Planning) (Consequential Amendments) Regulations 2024 made consequential amendments to other parts of the 1990 Act.

[1] DEFRA (2025). The Statutory Biodiversity Metric
[2] CIEEM, IEMA & ciria (2019). Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide
[3] UK Government (2021). Environment Act – Schedule 14.
[4] UK Government (2024). Environment Act 2021

From 12 February 2024, all relevant developments (subject to certain exemptions) must demonstrate at least 10% BNG using the Metric.

Additionally, this assessment has been undertaken with reference to the National Planning Policy Framework[5], particularly Policies N1 and N2, which support the conservation and enhancement of biodiversity, ecological connectivity and BNG where applicable.

1.3.2 Local Planning Policy

The Site lies within the administrative area of London Borough of Hillingdon (LBH). The London Borough of Hillingdon Council[6] contains Policy EM7: Biodiversity and Geological Conservation, which states:

"Hillingdon's biodiversity and geological conservation will be preserved and enhanced with particular attention given to:

…

3. The protection and enhancement of populations of protected species as well as priority species and habitats identified within the UK, London and the Hillingdon Biodiversity Action Plans.

4. Appropriate contributions from developers to help enhance Sites of Importance for Nature Conservation in close proximity to development and to deliver / assist in the delivery of actions within the Biodiversity Action Plan.

5. The provision of biodiversity improvements from all development, where feasible.

6. The provision of green roofs and living walls which contribute to biodiversity and help tackle climate change.

7. The use of sustainable drainage systems that promote ecological connectivity and natural habitats."

2. Methodology

The BNG assessment compares the biodiversity value of habitats within the Site before and after development using the Metric, in accordance with the Biodiversity Gain (Planning) Regulations 2024 and associated guidance[7].

The Metric calculates separate biodiversity values for area habitats, hedgerows and watercourses, enabling changes in habitat extent, distinctiveness, condition and strategic significance to be quantified.

All habitat mapping, condition assessment and biodiversity unit calculations have been undertaken by suitably experienced ecologists with appropriate ecological competence. Their specialist expertise and practical experience across a range of development projects enables them to provide robust, technically sound and evidence-based BNG assessments in accordance with current guidance and best practice using the relevant Statutory Biodiversity Metric criteria and professional judgement, applied in accordance with published guidance[4].

2.1 Baseline Data

Baseline habitat data were collected by AECOM in April and May 2026. Habitat classification follows UK Habitat Classification (UKHab) v2.0[8], with condition assigned in accordance with the Condition Assessment Sheets[9] accompanying the Metric. Condition assessment information is summarised in Appendix C.

Baseline habitats were mapped in Geographic Information System (GIS) to determine area and length measurements and entered into the Metric to calculate baseline biodiversity values.

The baseline biodiversity value of the Site has been calculated using the Metric, based on the habitat types, areas and conditions recorded during the baseline habitat survey.

[5] Ministry of Housing, Communities and Local Government (2026) *National Planning Policy Framework*. August 2026. https://www.gov.uk/guidance/national-planning-policy-framework.
[6] London Borough of Hillingdon (2012) Hillingdon Local Plan: Part 1 - Strategic Policies
[7] DEFRA (2026). The Statutory Biodiversity Metric User Guide
[8] UKHab Ltd (2018 – 2023). UK Habitat Classification.
[9] DEFRA (2025). Statutory Biodiversity Metric Condition Assessments.

2.2 Post-Development Data

The Parameters Plan[10] and Proposed Masterplan[11] were reviewed to identify habitats to be retained, enhanced or created as part of the Proposed Development.

Target habitat type and conditions were assigned using professional judgement and relevant design information, this is summarised in Appendix D.1 and D.2 respectively. This habitat data was entered into the Metric to calculate post-development biodiversity values.

2.3 Strategic Significance

Strategic Significance captures the ecological importance of habitat location relative to local biodiversity priorities and is assigned per Metric guidance, with any published Local Nature Recovery Strategy (LNRS) acting as the primary spatial framework. For assessments within LNRS coverage, all baseline habitats are set to Low Strategic Significance; Strategic Significance is then applied only to post-development habitats to reflect how proposed creation or enhancement delivers LNRS priorities or mapped opportunity areas. The Strategic Significance review draws on LNRS evidence (priority habitat maps, opportunity areas) and objectives for habitat creation, enhancement, and ecological network connectivity.

High Strategic Significance is assigned selectively to post-development habitats demonstrably designed to implement LNRS priorities or opportunities (i.e. habitat creation targeting mapped measures within the LNRS), while all others are assigned Low Strategic Significance.

The Greater London LNRS[12] has been used to assign Strategic Significance, in line with guidance set out in the Statutory Metric User Guide.

2.4 Trading Rules

Trading rules within the Metric define the conditions under which habitat losses can be compensated, ensuring that any replacement habitats are of equal or greater ecological value.

They restrict the replacement of high-distinctiveness or irreplaceable habitats with lower-distinctiveness types and establish when like-for-like or like-for-better substitution is required.

These rules are set within the Metric and are integral to determining whether proposed habitat creation and enhancement measures represent a positive change in biodiversity.

2.5 Application of the BNG Good Practice Principles

This assessment has been undertaken in line with the Biodiversity Net Gain Good Practice Principles for Development[13] to ensure that biodiversity gains are achieved in a measurable, transparent and ecologically meaningful way.

Application of the principles within this assessment includes:

- following the mitigation hierarchy to avoid, minimise and restore impacts before considering offsetting;
- basing biodiversity calculations on best-available baseline data and realistic habitat creation and enhancement outcomes;
- demonstrating additionality, ensuring that biodiversity gains are distinct from and delivered beyond essential mitigation;
- committing to long-term management and monitoring of created or enhanced habitats (typically for at least 30 years); and
- providing clear and auditable reporting to enable replication and independent verification.

[10] AECOM (2026). Landscape and Green Infrastructure Parameters Plan
[11] AECOM (2026) Proposed Masterplan
[12] Greater London Authority (2026) Greater London Local Nature Recovery Strategy.
[13] CIEEM, CIRIA, IEMA (2024). Biodiversity Net Gain: Good Practice Principles for Development.

These principles guide the structure and interpretation of the assessment, ensuring that biodiversity gains are both quantifiable within the Metric and deliverable through the design and subsequent management of the Proposed Development.

2.6 Assumptions and Limitations

In undertaking the calculation, the following assumptions and limitations have been made:

- All habitat areas and lengths have been measured using ArcGIS based on the Parameters Plan and Proposed Masterplan, as such habitat areas are approximations only.
- Habitat condition assessments were not undertaken for all individual tree habitats. As such, individual trees have been assumed 'Good' condition as per best practice guidance[1].

3. Results

3.1 Baseline Biodiversity Summary

The Site covers a total area of 6.99 ha. The 'Baseline Habitat Plan' is provided in Appendix A.

The baseline is predominantly comprised of Grassland – Modified grassland and Urban – Developed land; sealed surface with areas of Woodland and forest – Broadleaved woodland, Line of trees and Individual trees contributing most strongly to the overall biodiversity value. No watercourse habitats are present within the Site boundary.

In line with guidance set out in the Statutory Metric User Guide and the Greater London LRNS, all baseline habitats have been assigned 'Low' Strategic Significance.

No evidence of degradation of habitats since 30th January 2020 that has resulted in a loss of on-site biodiversity value was found.

3.2 Post-Development Biodiversity Summary

The Post-Development Parameters Plan[10] and Proposed Masterplan[11] proposes the creation of Grassland – Modified grassland, Grassland – Other neutral grassland, Urban – Biodiverse green roof, Urban – Developed land, Individual trees, and Native hedgerow. It also includes the retention of Individual trees and Line of trees and the enhancement of Grassland – Modified grassland and Line of trees.

The post-development habitats are shown on the 'Post-Development Habitat Plan' in Appendix B.

As outlined in Section 2.3, Strategic Significance has been assigned to all post-development habitats proposed within the Parameters Plan[10].

- **'High' SS –** assigned to Grassland – Other neutral grassland, Urban – Biodiverse green roof, Native hedgerow, Line of trees and Individual trees as they are identified as biodiversity targets within the Greater London LNRS;
- **'Low' SS –** assigned to Grassland – Modified grassland and Urban – Developed land; sealed surface as they are not identified as biodiversity targets within the Greater London LNRS.

3.3 Summary of Results

A summary of the results is shown in Table 1.

Table 1. Summary of Results

Habitat Type	Baseline	Post-Development	Total Net Unit Change	Total Net % Change
Area Units	34.25	34.90	+ 0.66	1.91%
Hedgerow Units	0.52	4.81	+ 4.29	821.67%

3.3.1 Trading Rules

3.3.1.1 Area Habitats

For Area habitats, the trading rules within the Metric are currently **not satisfied** for each distinctiveness level (see Table 2). This failure of the trading rules is caused by a loss of Woodland and forest – Other woodland; broadleaved habitat, which has not been directly mitigated for by the Proposed Development.

Table 2. Trading Rules – Area Habitats

Broad Habitat	Habitat Type	Distinctiveness Group	Trading Rule	Unit Change per habitat	Unit change per habitat group	Trading Satisfied?
Urban	Biodiverse green roof	Medium	Same broad habitat or a higher distinctiveness habitat required	1.17	1.17	No
Grassland	Other neutral grassland			28.22	28.22	
Individual trees	Urban tree			2.66	2.54	
Individual trees	Rural tree			-0.12		
Woodland and forest	Other woodland; broadleaved			-0.46	-0.46	
Grassland	Modified grassland	Low	Same distinctiveness or better habitat required	-30.82	-30.82	Yes*
Total				**+0.66**	**+0.66**	

***** 'Low' distinctiveness habitat loss offset by surplus of 'Medium distinctiveness habitat units.

3.3.1.2 Hedgerow Habitats

For hedgerow habitats, the trading rules within the Metric are currently **satisfied** for each distinctiveness level (see Table 3).

Table 3. Trading Rules – Hedgerow Habitats

Habitat Group	Distinctiveness Group	Trading Rule	Unit Change per habitat	Trading Satisfied?
Native hedgerow	Low / V. Low	Same distinctiveness or better habitat required	+4.10	Yes
Line of trees			+0.19	
Total			**+4.29**	

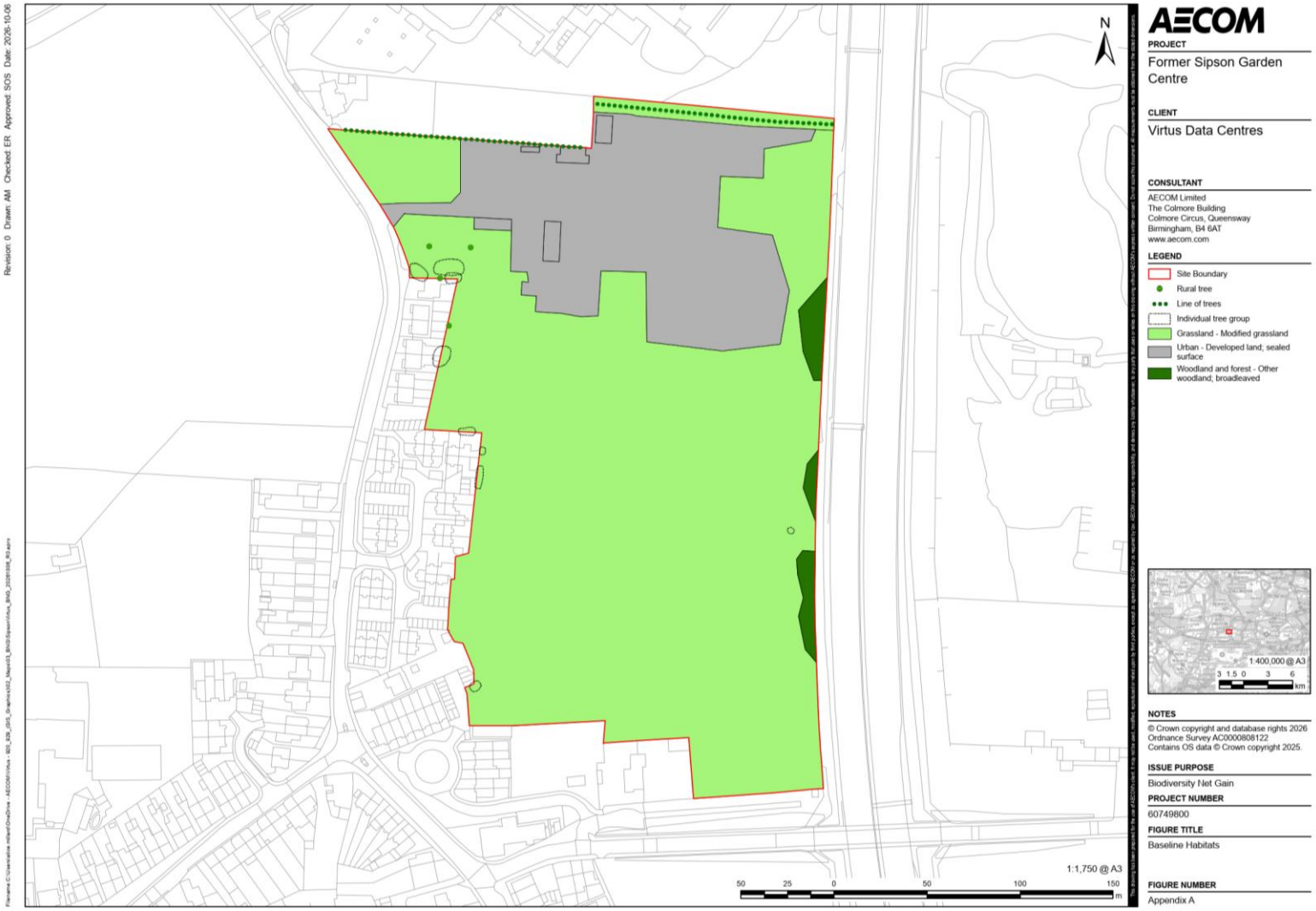
4. Conclusion

The Proposed Development is predicted to result in a net gain of 1.91% for area habitat units and a net gain of 821.67% for hedgerow units. The Proposed Development, therefore, does not meet the minimum BNG target of 10% BNG for each habitat type at this stage.

A total of 2.77 additional area habitat units is required to achieve 10% BNG. No further hedgerow units are required. If further on-site habitat enhancements are deemed unfeasible, the 10% BNG requirement will be met through an appropriate off-site solution, ensuring compliance with the relevant BNG Trading Rules. Details of how the 10% BNG requirement will be achieved will be provided in the Biodiversity Gain Plan, which will be submitted alongside a Habitat Management and Monitoring Plan (HMMP) for Significant Enhancements prior to commencement of the works.

The outputs of the Metric depend on all retained and enhanced habitats meeting the target conditions, subject to the criteria outlined within Metric User Guide[7]. Habitats would need to be monitored to ensure correct establishment and growth, and remedial action would need to be taken if this does not proceed as expected. Otherwise, the target conditions used in the calculations may not be met, and the predicted biodiversity units might not be achieved.

Appendix A Baseline Habitat Plan



Appendix B Post-Development Habitat Plan



Appendix C Baseline Habitat Condition Assessments

Broad Habitat	Habitat Type	Condition Sheet	Condition Sheet Criteria													Score	Condition
			A / A1	B / A2	C / B1	D / B2	E / C1	F / C2	G / D1	H / D2	I / E1	J / E2	K	L	M		
Grassland	Modified grassland	5. Grassland Low	P	P	P	P	P	P	P							5	Good
Grassland	Modified grassland	5. Grassland Low	F	P	P	P	P	P	P							6	Poor
Woodland and forest	Other woodland; broadleaved	24. Woodland														N/A*	Poor
	Line of trees	16. Line of trees	Y	N	N	N	Y	N								2	Poor

* Woodland too young to be condition assessed – assigned ‘Poor’ condition

Appendix D Post-Development Habitat Information

D.1 Parameters Plan/ Masterplan to UKHab Conversion

Parameters Plan Classification	UKHab Classification
Native Bulb Planting Mix (grassland mix with bulbs)	Grassland – Modified grassland
PV Panel Planting	Grassland – Modified grassland
Species-Rich Grassland and Wildflowers (within fence line)	Grassland – Modified grassland
Species-Rich Grassland and Wildflowers (outside of fence)	Grassland – Other neutral grassland
Attenuation Basin	Grassland – Other neutral grassland
Building	Urban – Developed land; sealed surface
Hardstanding	Urban – Developed land; sealed surface
Green roof (extensive and semi-intensive)	Urban – Biodiverse green roof
Hedgerow	Hedgerow – Native hedgerow

D.2 Post-Development Target Conditions

Broad Habitat	Habitat Type	Condition Sheet	Condition Sheet Criteria													Score	Condition
			A / A1	B / A2	C / B1	D / B2	E / C1	F / C2	G / D1	H / D2	I / E1	J / E2	K	L	M		
Grassland	Modified grassland	5. Grassland Low	Y	N	Y	N	Y	Y	Y							5	Moderate
Grassland	Other neutral grassland	6. Grassland Medium, High and Very High	Y	N	Y	Y	N	N								3	Moderate
Grassland	Other neutral grassland	6. Grassland Medium, High and Very High	Y	Y	Y	Y	N	Y								5	Good
Urban	Biodiverse green roof	22. Urban	N	Y	Y				N							2	Moderate
Individual trees	Urban tree	9. Individual trees	Y	Y	N	Y	N	Y								4	Moderate
	Native hedgerow	8. Hedgerow	Y	N	N	Y	N	Y	Y	N						4	Moderate
	Line of trees	16. Line of trees	Y	Y	N	N	Y	N								3	Moderate

Appendix E Metric Calculation

FINAL RESULTS

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Area habitat units*	0.66	
	Hedgerow units	4.29	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Area habitat units*	1.91%	Total net gain achieved is less than target set ▲
	Hedgerow units	821.67%	
	Watercourse units	0.00%	
Trading rules satisfied?		No - Check Trading Summaries ▲	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Area habitat units	10.00%	34.25	37.67	2.77	
Hedgerow units	10.00%	0.52	0.57	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

AECOM Limited
12 Regan Way
Chetwynd Business Park
Nottingham NG9 6RZ
United Kingdom

T: +44 (115) 827 8000