Great North Road Solar and Biodiversity Park

Environmental Statement

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Technical Appendix A8.13 – Biodiversity Net Gain Assessment

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Contents

A8.13.1 INTRODUCTION

A8.13.1.1 INTRODUCTION

1 This Technical Appendix (TA) presents a Biodiversity Net Gain (BNG) Assessment in relation to the Great North Road Solar and Biodiversity Park (the Development).

2 This TA includes no valuation or assessment of potential effects. These aspects are presented in the Environmental Statement (ES) Chapter 8 Ecology and Biodiversity [EN010162/APP/6.2.8].

A8.13.1.2 LEGISLATION AND POLICY

A8.13.1.2.1 Legislation

3 The Environment Act 2021[1] provides a framework for environmental protection in the UK. It is a wide-ranging piece of legislation affecting many aspects of the natural environment, including biodiversity. Schedule 14 of the Act establishes mandatory requirement for BNG in new developments.

4 Whilst the mandatory BNG requirement under Schedule 14 does not currently apply to Development Consent Orders (DCOs) made under the Planning Act 2008[2], the Government has confirmed its intention to extend the requirement to Nationally Significant Infrastructure Projects (NSIPs) in May 2026 (previously proposed for November 2025)[3].

5 At the time of writing, secondary legislation necessary to enact these provisions for NSIPs has not yet been prepared. The Applicant has voluntarily applied the Statutory Biodiversity Metric and associated best practice guidance, consistent with the principles of the Environment Act 2021.

6 The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024[4] establish the legal framework for identifying and managing irreplaceable habitats within the context of Biodiversity Net Gain (BNG). The regulations define specific habitat types as irreplaceable due to their unique characteristics, long-term development, and exceptional biodiversity value, and set out how such habitats must be treated in planning and development.

A8.13.1.2.2 Policy

7 The Overarching National Policy Statement for Energy (EN-1)[5] outlines the Government's policy for delivery of major energy infrastructure including explicit reference to Biodiversity Net Gain:

8 Paragraph 4.5.3 states: *"In England applicants for onshore elements of any development are encouraged to use the latest version of the biodiversity*

[1] Available at: https://www.legislation.gov.uk/ukpga/2021/30/contents [accessed on 01/06/2025]
[2] Available at: https://www.legislation.gov.uk/ukpga/2008/29/contents [accessed on 01/06/2025]
[3] Available at: https://www.gov.uk/government/consultations/biodiversity-net-gain-for-nationally-significant-infrastructure-projects [accessed on: 01/06/2025]
[4] Available at: https://www.legislation.gov.uk/uksi/2024/48/schedule/made [accessed 01/06/2025]
[5] Available at: https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1/overarching-national-policy-statement-for-energy-en-1 [accessed on 31/05/2025]

metric to calculate their biodiversity baseline and present planned biodiversity net gain outcomes."

9 Paragraph 4.5.6 encourages applicants to demonstrate how proposals contribute to the delivery of Local Nature Recovery Strategies (LNRSs), nature recovery networks, and other strategic environmental goals.

10 The National Planning Policy Framework (NPPF) [6] sets out the overarching planning principles for biodiversity in England. Relevant paragraphs include:

11 Paragraph 174(d) – Planning decisions should minimise impacts on and provide net gains for biodiversity.

12 Paragraph 180(a–c) – Plans and decisions should protect and enhance biodiversity and geodiversity, including the promotion of coherent ecological networks.

13 The Local Nature Recovery Strategy (LNRS) for Nottinghamshire and Nottingham[7] identifies Areas of Particular Importance for Biodiversity (APIB) and sets out strategic priorities for ecological enhancement across the county. These designations have informed the application of strategic significance multipliers within the BNG metric.

A8.13.1.3 AIMS AND OBJECTIVES

14 The aim of the BNG Assessment is to quantify the change in biodiversity value of the habitats within the Order Limits caused by the Development.

A8.13.1.4 STUDY AREA

15 The Study Area for the assessment includes all land within the Order Limits.

16 The Study Area also includes all rivers and streams within 10 m of the Order Limits and all ditches within 5 m, in keeping with the Statutory Biodiversity Metric User Guide[8].

A8.13.2 METHODS

17 In the absence of guidance for NSIPs, the following approach was adopted.

A8.13.2.1 DESK STUDY

18 A desk study was undertaken to obtain pre-existing ecological data and information relevant to the assessment. The desk study included:

- An assessment of aerial imagery and Ordnance Survey mapping;
- A search of the MAGIC website[9] for priority habitats within the Study Area and from within a 2 km of the Order Limits; and
- A request (in January 2024) to the Nottinghamshire Biological and Geological Records Centre (NBGRC) for records of protected or notable plant species within 2 km of the Order Limits.

[6] Available at: https://assets.publishing.service.gov.uk/media/675abd214cbda57cacd3476e/NPPF-December-2024.pdf [accessed on 31/05/2025]
[7] Available at: https://nottsnaturerecovery.co.uk/ [accessed on 08/01/2026]
[8] Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides [accessed on 20/05/2025]
[9] Available at: www.magic.gov.uk [accessed 13/05/2025]

19 Two consented developments identified in the cumulative short-list (TA A2.1: Cumulative Assessment Stages 1 and 2 [EN010162/APP/6.4.2.1]) are within the Order Limits and will be considered as part of the operational baseline. Consequently, the proposed 'as built' landscape designs, rather than current, pre-development baselines, have been used to provide baseline habitat data for these areas. The two developments are:

- A Battery Energy Storage System (BESS) near Staythorpe [22/01840/FULM]; and
- A cable connection between the BESS and the National Grid Staythorpe Electricity Substation [24/01261/FULM].

20 Data and information have been sourced from the following planning documents:

- Staythorpe Cable Route Biodiversity Net Gain Statement and Assessment[10]; and
- Staythorpe Landscape and Ecology Management Plan (LEMP)[11].

21 The 'as built' habitat data from these two developments have been integrated into the baseline for the Development without distinguishing them.

A8.13.2.2 SURVEY

A8.13.2.2.1 UKHab and Condition Assessment

22 UKHab habitats were classified and mapped according to the approach detailed in TA A8.3 Habitats and Vegetation Baseline [EN010162/APP/6.4.8.3].

23 Condition assessment surveys were conducted in August and September 2024 and the locations are shown in Figure A8.13.1 (Appendix C). Some areas assessed for condition are located outside of the current Order Limits due to subsequent revisions to the Order Limits, but they remain representative of local habitats.

24 Due to the large scale of the Order Limits, a sampling approach was taken to the condition assessment of habitats. The areas assessed provided a representative sample of a given habitat, included areas requiring resurvey (e.g., because their initial survey was carried out at suboptimal time of year) or validation (e.g., to confirm previous survey results), and took account of the availability of usable field data from earlier surveys from which reliable inferences about habitat condition could be made.

25 Condition scores were then extrapolated to the full extent of the habitat type based on the relative proportions recorded in the sample. Habitats that do not require a condition assessment within the Statutory Metric were not included in the sampling survey effort.

[10] Biodiverse Consulting Limited (2024). Staythorpe Cable Route Biodiversity Net Gain Statement and Assessment (v2.0).
[11] Tir Collective Limited (2024). Staythorpe Landscape and Ecology Management Plan (LEMP) (rev. 3).

26 Table A8.13.1 presents the percentage of the total habitat area sampled for each habitat type. Condition assessment results are presented in Appendix B.

Table A8.13.1: Percentage of total extent surveyed for UKHab Habitat Types

UKHab Habitat	UKHab Code	Sample Percentage Condition Assessed	Total Extent Condition Assessed
Bare ground	510	0.00%	0.00 ha
Temporary grass and clover leys	c1b	No Condition Assessment Required	
Cereal crops	c1c	No Condition Assessment Required	
Non-cereal crops	c1d	No Condition Assessment Required	
Other neutral grassland	g3c	9.52%	3.30 ha
Modified grassland	g4	14.86%	30.86 ha
Bramble scrub	h3d	No Condition Assessment Required	
Mixed scrub	h3h	3.48%	0.19 ha
Ponds (non-priority habitat)	r1g 42	74.67%	0.45 ha
Developed land; sealed surface	u1b	No Condition Assessment Required	
Developed land; sealed surface	u1b5	No Condition Assessment Required	
Developed land; sealed surface	u1b6	No Condition Assessment Required	
Artificial unvegetated, unsealed surface	u1c	No Condition Assessment Required	
Lowland mixed deciduous woodland	w1f	13.50%	2.63 ha
Other woodland; broadleaved	w1g	19.77%	0.72 ha

UKHab Habitat	UKHab Code	Sample Percentage Condition Assessed	Total Extent Condition Assessed
Other woodland; mixed	w1h	17.47%	1.07 ha
Other coniferous woodland	w2c	100.00%	0.18 ha
Native hedgerow	h2a6	5.19%	5.16 km
Native hedgerow with trees	h2a6 11	4.53%	1.77 km
Native hedgerow - associated with bank or ditch	h2a6 50	Assumed to be same as h2a6	
Native hedgerow with trees - associated with bank or ditch	h2a6 11 50	Assumed to be same as h2a6 11	
Species-rich native hedgerow	h2a5	21.08%	4.88 km
Species-rich native hedgerow with trees	h2a5 11	21.97%	3.34 km
Species-rich native hedgerow - associated with bank or ditch	h2a5 50	91.45%	1.76 km
Species-rich native hedgerow with trees - associated with bank or ditch	h2a5 11 50	Assumed to be same as h2a5 11	
Non-native and ornamental hedgerow	h2b	No Condition Assessment Required	
Line of trees	33	4.74%	0.42 km
Line of trees - associated with bank or ditch	33 50	Assumed to be same as 33	
Other rivers and streams	r2b	21.12%	2.72 km
Ditches	50	1.45%	0.74 km

27 For Mixed scrub (UKHab Code h3h), the sample proportion was relatively small due to the identification of additional areas following initial surveys; these additional areas mainly comprised narrow scrub margins unlikely to achieve good condition, thus not impacting the overall assessment materially.

28 Similarly, a small proportion of ditches were surveyed, attributed to reclassification during data review post-sampling. Given the agricultural context and relative uniformity of ditch habitats, this is not considered a significant limitation.

29 Hedgerows and lines of trees associated with ditches were assumed to be in the same condition as their equivalents without ditches. This is considered appropriate, as the condition assessment criteria are the same.

A8.13.2.2.2 MoRPh Rivers

30 MoRPh surveys to assess the condition of rivers were conducted according to standard methods[12] and were undertaken by River Condition Assessment (RCA) accredited surveyors (details available on request).

A8.13.2.2.3 Assumptions and Limitations

31 Any areas recorded using the UKHab secondary code of 510 Bare Ground have been assumed to be in poor condition as no plant species have been recorded in these areas. These areas comprise rural tracks usually along the edge of arable fields.

32 The Arboricultural Impact Assessment [EN010162/APP/6.4.8.12] was not available at the time of production of the BNG assessment and many of the trees recorded therein will be part of hedgerows or woodland parcels which are recorded using area habitats in BNG. All individual trees identified during the UKHab survey were assumed to be of medium size (30–60 cm diameter at breast height) and in moderate condition. This is likely to be a conservative approach as few trees will be in the large category and many more will be in the small category. Additionally, any large trees are more likely to be retained.

33 Encroachment to baseline ditches was either determined through survey or extrapolated from those surveyed. Encroachment to post development ditches was determined from landscape plans where relevant, or otherwise assumed to be the same as the baseline level.

34 All watercourses not classified as rivers were assumed to be ditches, including any potential culverts. This approach is precautionary because it increases the baseline value of the Site.

35 Assumptions about specific baseline and post development habitats are provide in the ‘User Comments’ of the metric.

36 The metric file (.xlsx) and river condition assessment sheets there are large and complex and so have not been included in this report, but can be provided separately upon request.

A8.13.2.3 BIODIVERSITY ASSESSMENT METHODOLOGY

37 The Defra Statutory Biodiversity Metric (version 1.0.3)[13] was applied to calculate Biodiversity Units for this site and is a standard approach based on the information in the accompanying User Guide and Technical Guidance.

[12] Gurnell, A. and Shuker, L. (2022) The MoRPh Survey Technical Reference Manual.
[13] Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides [accessed on 20/05/2025]

The application of this tool prescribes a biodiversity unit value for pre-development baseline conditions alongside the proposed post-development conditions. Post-development onsite habitats are assigned a condition considered achievable within a 30-year period through a dynamic management plan and takes into consideration feasibility issues.

A8.13.2.4 DEGRADATION

38 Any unauthorised degradation of land within the Order Limits has been determined through:

- Assessment of aerial imagery and Ordnance Survey mapping; and
- Consultation with the Applicant regarding activities within the Order Limits since 30 January 2020.

39 If degradation is deemed to have occurred, it is accounted for by using the pre-degradation habitat as the baseline within the Order Limits. The pre-degradation habitat is determined through:

- Assessment of aerial imagery and Ordnance Survey mapping;
- Data records;
- Historic field surveys; and
- Anecdotal evidence provided by Applicant.

40 A precautionary approach is used when assigning condition scores to the pre-degradation habitats. The pre-degradation habitat is recorded as the baseline in the Statutory Biodiversity Metric. The length of time between the degradation activities and the post-development habitat creation or enhancement is accounted for using the 'delay in starting habitat creation or enhancement' function in the Statutory Biodiversity Metric.

A8.13.2.5 BIODIVERSITY GAIN HIERARCHY

41 The Biodiversity Gain Hierarchy for the purpose of the statutory framework for biodiversity net gain is set out in Article 30A of the Development Management Procedure Order[14]. This hierarchy is distinct from the mitigation hierarchy set out in the National Planning Policy Framework.

42 This BNG Assessment has applied the Biodiversity Gain Hierarchy to maximise onsite gain opportunities given the nature of the Development and what is considered realistically achievable within the Order Limits.

43 To prioritise avoidance, where possible habitats are retained e.g., all woodland and pond habitat is being retained and all habitats within designated sites have been retained. Where habitat loss is unavoidable, the habitats will be replaced through the creation of new habitats. Creation has been chosen over enhancement due to the significant extent of low value agricultural habitat (with no enhancement possible) across the order limits.

[14] Available at: The Town and Country Planning (Development Management Procedure) (England) Order 2015 [accessed on 20/05/2025]

A8.13.3 RESULTS

A8.13.3.1 DESK STUDY

A8.13.3.1.1 Priority Habitats

44 The desk study identified several priority habitats in the Study Area although most of them are not corroborated by field surveys and are thus considered to be potential priority habitats until confirmed otherwise. The priority habitats are shown in Figure A8.3.2 in TA A8.3 Habitats and Vegetation Baseline [EN010162/APP/6.4.8.3] and include: Good Quality Semi-Improved Grassland; Coastal and Floodplain Grazing Marsh; Deciduous Woodland; and Wood-pasture and Parkland. These areas were subjected to UKHab survey to determine their value and potential to qualify as priority habitats.

45 The wider landscape, outside the Order Limits, includes a range of priority habitats including: Coastal and Floodplain Grazing Marsh, Lowland Meadows, Good Quality Semi-Improved Grassland, Reedbeds, Lowland Fen, Deciduous Woodland, Wood-pasture and Parkland, Traditional Orchard, and Open Mosaic Habitats on Previously Developed Land. Areas of Ancient and Semi-Natural Woodland and Ancient Replanted Woodland border the Study Area and are patchily distributed in the wider area.

A8.13.3.1.2 Relevant Strategic Plans

46 The Draft Local Nature Recovery Strategy (LNRS) for Nottinghamshire identifies areas within the Order Limits designated as Areas of Particular Importance for Biodiversity (APIB). These habitats, primarily woodland, have been awarded a strategic significance multiplier within the baseline biodiversity calculations.

47 The strategic significance multiplier was also applied to proposed post-development habitats at Moorhouse Beck, located immediately south of the A1, where habitat creation is designed to satisfy LNRS criteria C/M4 (sensitive land management adjacent to watercourses, including establishment of >20 m buffer strips).

48 The strategic significance multipliers applied within the biodiversity metric have been assigned in accordance with the Newark and Sherwood District Council Mandatory Biodiversity Net Gain Strategic Significance Guidance. This guidance was followed to inform the appropriate categorisation of both baseline and post-development habitats, ensuring alignment with local policy priorities and delivering outcomes that contribute meaningfully to the LNRS.

A8.13.3.2 DEGRADATION

49 There have been no unauthorised degradation activities since 30 January 2020.

A8.13.3.3 FIELD SURVEY

50 Full UKHab descriptions for onsite habitats are provided in ES TA A8.3 Habitats and Vegetation Baseline [EN010162/APP/6.4.8.3].

51 Table A8.13.2 presents the relative percentages of condition scores identified during the condition assessment sampling surveys.

Table A8.13.2: Relative proportions of habitat conditions, expressed as percentages of each condition category per habitat type.

UKHab Habitat	UKHab Code	Percentage				
		Poor	Fairly Poor	Moderate	Fairly Good	Good
Other neutral grassland	g3c	100.0				
Modified grassland	g4	76.5				23.5
Mixed scrub	h3h	27.4		72.6		
Ponds (non-priority habitat), non-woodland	r1g 42	76.9		23.1		
Lowland mixed deciduous woodland	w1f			100.0		
Other woodland; broadleaved	w1g			100.0		
Other woodland; mixed	w1h	100.0				
Other coniferous woodland	w2c	100.0				
Native hedgerow	h2a6			21.7		78.3
Native hedgerow with trees	h2a6 11			50.5		49.5
Species-rich native hedgerow	h2a5			30.5		69.5
Species-rich native hedgerow with trees	h2a5 11			52.4		47.6
Species-rich native hedgerow - with bank or ditch	h2a5 50			9.9		90.1
Non-native and ornamental hedgerow	h2b	100.0				
Line of trees	33	26.1		73.9		
Other rivers and streams	r2b		5.0	79.5	15.5	
Ditches	50	40.2		59.8		

A8.13.3.4 POST-DEVELOPMENT HABITATS

52 All retained habitats will be retained in their current habitat type and condition or restored to their current habitat type and condition within two years.

53 The Outline Landscape and Ecological Management Plan (LEMP; TA A5.1 [EN010162/APP/6.4.5.1]) and accompanying figures describe and show the post-development habitats.

54 Figure 5.4 Illustrative Design [EN010162/APP/6.3.5.4] shows an illustrative layout of the Development.

55 Table A8.13.3 summarises the condition assessment scores assigned to proposed enhanced and created habitats post-development. Relevant management prescriptions are detailed in the Outline LEMP.

Table A8.13.3 Condition assessment scores assigned to proposed enhanced, and newly created habitats post-development.

LEMP Habitat	UKHab Habitat	UKHab Code	Target Condition	Target Condition Criteria
Enhanced Habitats				
Proposed Hedgerows	Native hedgerow with trees - associated with bank or ditch	h2a6 11 50	Moderate - Good	• A1 - Height >1.5 m average along length • A2 - Width >1.5 m average along length • B1 - Gap between ground and base of canopy <0.5 m for >90% of length • B2 - Gaps make up <10% of total length; and • No canopy gaps >5 m • C1 - >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: Measured from outer edge of hedgerow; and Is present on one side of the hedgerow (at least). • D1 - >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA) and recently introduced species. • D2 - >90% of the hedgerow or undisturbed ground is free of damage caused by human activities. • E2 - At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.

LEMP Habitat	UKHab Habitat	UKHab Code	Target Condition	Target Condition Criteria
	Other rivers and streams	r2b	Reduction in riparian encroachment	• Reduction in any features or interventions within the riparian zone that reduce the quantity, quality or ecological function of the riparian habitat primarily management practices (including agriculture).
	Ditches	50	Reduction in riparian encroachment	• Reduction in any features or interventions within the riparian zone that reduce the quantity, quality or ecological function of the riparian habitat primarily management practices (including agriculture).
	Ditches	50	Poor - Moderate	• A - The ditch is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. • C - There is less than 10% cover of filamentous algae and or duckweed Lemna spp. (these are signs of eutrophication). • D - A fringe of aquatic marginal vegetation is present along more than 75% of the ditch. • E - Physical damage is evident along less than 5% of the ditch, with examples of damage including: excessive poaching, damage from machinery use or storage, or any other damaging management activities. • G - Less than 10% of the ditch is heavily shaded. • H - There is an absence of non-native plant and animal species.

LEMP Habitat	UKHab Habitat	UKHab Code	Target Condition	Target Condition Criteria
Created Habitats				
Proposed woodland	Other woodland; broadleaved	w1g	Poor	• A1 - One age-class present. • B2 - Evidence of significant browsing pressure is present in less than 40% of whole woodland. • C2 - Rhododendron *Rhododendron ponticum* or cherry laurel *Prunus laurocerasus* not present, and other invasive species <10% cover. • D2 - Three to four native tree or shrub species found across woodland parcel. • E3 - >80% of canopy trees and >80% of understory shrubs are native. • F3 - 10 - 20% of woodland has areas of temporary open space. • Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted. • G1 - No classes or coppice regrowth present in woodland. • H2 - 11% to 25% tree mortality and or crown dieback or low-risk pest or disease present. • I1 - No recognisable woodland NVC plant community at ground layer present. • J1 - One or less storey across all survey plots. • K1 - No veteran trees present in woodland. • L1 - Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing and

LEMP Habitat	UKHab Habitat	UKHab Code	Target Condition	Target Condition Criteria
				fallen deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities. • M2 - Less than 1 hectare in total of nutrient enrichment across woodland area, and or less than 20% of woodland area has damaged ground.
Proposed grassland (PV areas) – species diverse	Modified grassland	g4	Moderate	• A - There are 6-8 vascular plant species per m2 present, including at least 2 forbs. • C - Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble Rubus *fruticosus agg*. may be present). • F - Cover of bracken Pteridium aquilinum is less than 20%. • G - There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).
Proposed community orchard	Traditional orchards	27	Poor	• C - Less than 5% of fruit trees are smothered by scrub. Small patches of dense scrub and or scattered scrub growing between trees can be beneficial to biodiversity, however these occupy less than 10% of ground cover. • E - At least 95% of the trees are free from damage caused by humans or animals, for example browsing, bark stripping or rubbing on non-adjusted ties. • H - There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of suboptimal condition make up less than 10% of ground cover.

LEMP Habitat	UKHab Habitat	UKHab Code	Target Condition	Target Condition Criteria
Proposed “wood pasture”	Modified grassland and Individual trees	g4 & 200	Good for grassland, moderate for trees	• Modified grasslandA - There are 6-8 vascular plant species per m2 present, including at least 2 forbs. • B - 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. • C - Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). • E - Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens). • F - Cover of bracken *Pteridium aquilinum* is less than 20%. • G - There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA). Individual trees • A - The tree is a native species (or at least 70% within the block are native species). • 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). • 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

LEMP Habitat	UKHab Habitat	UKHab Code	Target Condition	Target Condition Criteria
				>75% of expected canopy for their age range and height. • F - More than 20% of the tree canopy area is oversailing vegetation beneath.
Proposed ecotone	Mixed scrub	h3h	Moderate	• 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. • C - There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of suboptimal condition make up less than 5% of ground cover. • D - The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.
Proposed ecotone	Other neutral grassland	g3c	Moderate	• A - The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to suboptimal species which may be listed in the UKHab description). • B - 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 insects, birds and small mammals to live and breed.

LEMP Habitat	UKHab Habitat	UKHab Code	Target Condition	Target Condition Criteria
				• C - Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.
Proposed diverse grassland	Modified grassland	g4	Good	• A - There are 6-8 vascular plant species per m2 present, including at least 2 forbs. • B - 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. • C - Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus agg*. may be present). • D - Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities. • F - Cover of bracken Pteridium aquilinum is less than 20%. • G - There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).
Proposed diverse grassland – Maplebeck	Other neutral grassland	g3c	Moderate	• A - The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to suboptimal species which may be listed in the UKHab description). • B - Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm)

LEMP Habitat	UKHab Habitat	UKHab Code	Target Condition	Target Condition Criteria
				creating microclimates which provide opportunities for insects, birds and small mammals to live and breed. • C - Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.
Proposed hedgerow	Species-rich native hedgerow	h2a5	Moderate	• A1 - Height >1.5 m average along length • B1 - Gap between ground and base of canopy <0.5 m for >90% of length • C1 - >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: Measured from outer edge of hedgerow; and Is present on one side of the hedgerow (at least). • D1 - >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA) and recently introduced species. • D2 - >90% of the hedgerow or undisturbed ground is free of damage caused by human activities.
Proposed hedge and tree belt	Species-rich native hedgerow with trees	h2a5 11	Moderate	• A1 - Height >1.5 m average along length • B1 - Gap between ground and base of canopy <0.5 m for >90% of length • C1 - >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: Measured from outer edge of hedgerow; and Is present on one side of the hedgerow (at least). • D1 - >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including

LEMP Habitat	UKHab Habitat	UKHab Code	Target Condition	Target Condition Criteria
				those listed on Schedule 9 of WCA) and recently introduced species. • D2 - >90% of the hedgerow or undisturbed ground is free of damage caused by human activities. • E2 - At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.
Individual Trees	Individual Trees	200	Moderate	• A - The tree is a native species (or at least 70% within the block are native species). • 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). • 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. • F - More than 20% of the tree canopy area is oversailing vegetation beneath.

A8.13.3.5 SITE ASSESSMENT

56 The Biodiversity Unit values for the Site, calculated using extrapolated sampling data and the proposed habitat types described above, are summarised in Table A8.13.4. The statutory metric headline results are presented in Appendix A. The Development satisfies trading rules.

Table A8.13.4: Net Change in Biodiversity Units.

Unit Type	Baseline Units	Post-Development Units	Net Change	% Net Gain
Habitat Units	4044.91	5731.26	1686.36	41.69%
Hedgerow Units	1,232.54	1,558.72	326.18	26.46%
Watercourse Units	307.84	341.85	34.01	11.05%

A8.13.3.6 MONITORING

57 The Site will be monitored for the 40-year lifespan of the Development. The habitats will be subject to UKHab classification surveys and condition assessment starting 1 year after landscaping is completed. The outline LEMP (TA A5.1 [EN010162/APP/6.4.5.1]) specifies the frequency and timing of monitoring.

A8.13.4 FUTURE UPDATE

58 Following consent, the illustrative design would be developed into a final design and the outline LEMP into a final LEMP. The BNG Assessment will be revised to account for these changes and will include re-baselining of habitats, as specified in the outline LEMP. A biodiversity design strategy will be produced to show how the Development will secure the net gains reported in the revised, final BNG Assessment.

APPENDIX A

Statutory Biodiversity Metric Headline Results

Great North Road Solar and Biodiversity Pa

Return to results menu

Headline Results

Scroll down for final results ⚠

On-site baseline	*Habitat units*	4044.91	
	Hedgerow units	1232.54	
	Watercourse units	307.84	
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	5731.26	
	Hedgerow units	1558.72	
	Watercourse units	341.85	
On-site net change (units & percentage)	*Habitat units*	1686.36	41.69%
	Hedgerow units	326.18	26.46%
	Watercourse units	34.01	11.05%
Off-site baseline	*Habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	*Habitat units*	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	1686.36	
	Hedgerow units	326.18	
	Watercourse units	34.01	
Spatial risk multiplier (SRM) deductions	*Habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	

FINAL RESULTS

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	1686.36
	Hedgerow units	326.18
	Watercourse units	34.01
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	41.69%
	Hedgerow units	26.46%
	Watercourse units	11.05%
Trading rules satisfied?	Yes ✓	

APPENDIX B

Table A8.13.B1 Medium, High and Very High Distinctiveness Grassland Condition Assessments

Parcel	**4**	**17**	**24**
Area	2.678	0.379	0.239
Criterion A	Fail	Fail	Fail
Criterion B	Pass	Fail	Fail
Criterion C	Fail	Pass	Pass
Criterion D	Pass	Pass	Pass
Criterion E	Fail	Fail	Fail
Criterion F	Fail	Fail	Fail
Number of passes	2	2	2
Condition	Poor	Poor	Poor

Table A8.13.B2 Low Diversity Grassland Condition Assessments

Parcel	**1**	**2**	**3**	**5**	**6**	**9**
Area (ha)	5.166	0.109	5.048	3.965	3.185	13.387
Criterion A	Fail	Pass	Fail	Pass	Pass	Fail
Criterion B	Fail	Pass	Fail	Pass	Pass	Fail
Criterion C	Pass	Pass	Pass	Pass	Pass	Pass
Criterion D	Pass	Pass	Pass	Pass	Pass	Pass
Criterion E	Pass	Pass	Pass	Pass	Pass	Pass
Criterion F	Pass	Pass	Pass	Pass	Pass	Pass
Criterion G	Pass	Pass	Pass	Pass	Pass	Pass
Number of Passes	5	7	5	7	7	5
Condition	Poor	Good	Good	Good	Good	Poor

Table A8.13.B3 Scrub Condition Assessments

Parcel	**16**	**18**
Area (ha)	0.051	0.135
Criterion A	Fail	Pass
Criterion B	Pass	Fail
Criterion C	Pass	Pass
Criterion D	Fail	Pass
Criterion E	Fail	Fail
Number of Passes	2	3
Condition	Poor	Moderate

Table A8.13.B4 Pond Condition Assessments (all non-woodland)

Parcel	**7**	**11**	**12**	**15**	**20**	**25**
Area (ha)	0.337	0.003	0.004	0.012	0.030	0.068
Criterion A	Fail	Pass	Pass	Fail	Pass	Fail
Criterion B	Pass	Fail	Fail	Fail	Pass	Fail
Criterion C	Pass	Pass	Fail	Pass	Pass	Fail
Criterion D	Fail	Pass	Pass	Pass	Pass	Pass
Criterion E	Fail	Pass	Pass	Pass	Pass	Pass
Criterion F	Pass	Pass	Pass	Pass	Pass	Pass
Criterion G	Pass	Pass	Pass	Pass	Pass	Pass
Criteria for non-woodland ponds only						
Criterion H	Fail	Pass	Fail	Fail	Fail	Pass
Criterion I	Pass	Pass	Pass	Fail	Pass	Pass
Number of Passes	5	8	6	5	8	6
Condition	Poor	Mod	Mod	Poor	Mod	Mod

Table A8.13.B5 Woodland Condition Assessments

Parcel	**8**	**10**	**13**	**21**	**22**	**23**	**26**
Area (ha)	0.175	1.027	0.524	0.558	1.042	1.069	0.194
Criterion A	1	2	2	2	2	2	2
Criterion B	3	2	2	3	3	1	3
Criterion C	3	3	3	3	3	3	2
Criterion D	1	3	3	3	3	3	3
Criterion E	1	3	3	1	3	2	3
Criterion F	3	3	3	3	1	1	3
Criterion G	1	2	2	2	2	2	2
Criterion H	3	2	2	3	2	3	3
Criterion I	1	1	2	2	2	2	1
Criterion JF	1	2	2	2	2	2	2
Criterion K	1	2	1	1	1	1	1
Criterion L	1	2	2	2	1	1	3
Criterion M	2	2	2	3	1	1	2
Score	22	29	29	30	26	24	30
Condition	Poor	Mod	Mod	Mod	Mod	Poor	Mod

Table A8.13.B6 Line of Trees Condition Assessments

Parcel ID	**Length (km)**	**Criteria**					**Condition**
		A	**B**	**C**	**D**	**E**	
69	0.038	Fail	Pass	Fail	Fail	Pass	Poor
83	0.034	Pass	Pass	Fail	Fail	Pass	Moderate
84	0.028	Pass	Pass	Pass	Fail	Pass	Moderate
85	0.077	Pass	Pass	Pass	Fail	Pass	Moderate
96	0.056	Pass	Pass	Fail	Fail	Pass	Moderate
97	0.073	Pass	Fail	Fail	Fail	Pass	Poor
28	0.081	Pass	Fail	Pass	Fail	Pass	Moderate

Table A8.13.B7 Ditch Condition Assessments

Parcel ID	Length (km)	Criteria							
		A	**B**	**C**	**D**	**E**	**F**	**G**	**H**
31	0.290	Pass	Fail	Fail	Fail	Pass	Fail	Fail	Pass
32	0.441	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass
39	0.660	Pass	Fail	Fail	Fail	Pass	Fail	Fail	Pass
42	0.579	Pass	Fail	Fail	Fail	Pass	Fail	Fail	Pass
49	0.976	Pass	Fail	Pass	Pass	Pass	Fail	Fail	Pass
46	0.304	Pass	Fail	Pass	Pass	Pass	Fail	Pass	Pass
50	0.938	Pass	Fail	Pass	Fail	Pass	Fail	Fail	Pass
55	0.297	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Pass
Condition		Poor	Moderate	Poor	Poor	Poor	Moderate	Poor	Poor

APPENDIX C

Condition Assessment Sampling Areas Figure A8.13.1

Solar & Biodiversity Park

Order Limits

Condition assessment

Assessed for Condition

Not Assessed for Condition

Fixed Value Condition

1:60,000 Scale @ A3

0 0.5 1 2 km

Ref: 026-ES-A8.13.1	Date: 15/01/2026

Condition Assessment Sampling Areas
Figure A8.13.1

Great North Road Solar and Biodiversity Park
Environmental Statement