
Necton Greener Grid Park
on behalf of Statkraft UK

Appendix 7: Biodiversity Net-Gain (BNG)



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ANNEXES

ANNEX 1: DEFRA BIODIVERSITY NET GAIN ASSESSMENT METRIC VERSION 4.0 (Separate document)

1 INTRODUCTION

1.1 Background

- 1.1.1 This Biodiversity Net-gain Note has been prepared by Avian Ecology Ltd. (AEL) on behalf of Statkraft UK in relation to the proposed Greener Grid Park located on land south of Necton Onshore Substation, Necton, Norfolk (the Site).
- 1.1.2 The Site location and habitats are provided in **Figure 1** of the *Ecological Assessment Report*¹.
- 1.1.3 The proposed development includes the construction, operation and subsequent decommissioning of a Greener Grid Park plus associated infrastructure as illustrated on the *Landscape Mitigation Plan (Drawing N^o: 12202_LPM_GA_01 (6))*.

1.2 Legislation, Policy and Guidance

- 1.2.1 Biodiversity net-gain in development is defined as “development that leaves biodiversity in a better state than before”.
- 1.2.2 The National Planning Policy Framework (NPPF, 2021²) requires the demonstration of biodiversity net-gain with any planning applications. The accompanying National Planning Practice Guidance (NPPG³) states that using a metric is a pragmatic way to calculate the impact of a development and the net gain that can be achieved. It goes on to state that *‘tools such as the Defra biodiversity metric can be used to assess whether a biodiversity net-gain outcome is expected to be achieved’*.
- 1.2.3 In addition the NPPG states that *‘Biodiversity net-gain can be achieved on-site, off-site or through a combination of on-site and off-site measures’* and that this can involve the creation of new habitats, enhancement of existing habitats, creation of green infrastructure (street trees, public open space, green roofs etc.) and sustainable drainage systems and that *‘relatively small features can often achieve important benefits for wildlife, such as incorporating swift bricks and bat boxes in developments and providing safe routes for hedgehogs between different areas of habitat’*.
- 1.2.4 In addition, the document adopts guidance provided within the NPPF, stating that development proposals should seek to *‘provide opportunities to incorporate biodiversity improvements in and around developments... especially where this can secure measurable net gains for biodiversity’* and that the local plan will *‘promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity’*.
- 1.2.5 The Environment Act 2021⁴ was given Royal Assent in late-2021 and is now law in England. It is expected that from late-2023, there will be a mandatory requirement for a 10% Biodiversity Net Gain. Currently, whilst there is no minimum biodiversity net gain, there is a requirement for a quantifiable net gain to be achieved on all planning proposals. Local Planning Authorities (LPAs) have begun to incorporate biodiversity net-gain policies into their Local Plans; Norfolk County Council has announced that following the Environment Act, there will be a commitment to a minimum of 10% biodiversity net-gain for applications within Norfolk.

¹ Avian Ecology Ltd (2023) *Necton Greener Grid Park: Ecological Assessment Report*. A report prepared on behalf of Statkraft UK.

² <https://www.gov.uk/government/publications/national-planning-policy-framework--2>.

³ <https://www.gov.uk/guidance/natural-environment>

⁴ <https://services.parliament.uk/bills/2019-21/environment.html>

1.3 Site Overview

- 1.3.1 The Site as illustrated by the red-line application boundary shown on **Figure 1** is approximately 11.75ha, located adjacent to the south of the operational Necton Onshore Substation at approximate central grid reference TF 88826 10460.
- 1.3.2 A review of aerial imagery and from information gleaned from the extended habitat survey shows that the Site comprises an area of arable farmland with nearby hedgerows, trees and dry ditches.
- 1.3.3 In the wider context the Site is surrounded by further extensive areas of arable and pastoral farmland and Necton village to the south.

2 METHODOLOGY

Extended Habitat Survey

- 2.1.1 An extended habitat survey of the Site was undertaken 4th May 2022 by Z Hinchcliffe *BSc MRes*, a suitably qualified ecologist and botanist.
- 2.1.2 The survey followed UK industry standard Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Methodology (JNCC, 2010)⁵. However, specific habitats were also recorded and mapped in accordance with the recently and widely adopted methodology described within the *UK Habitat Classification Manual Version 1.1* (UK Habitat Classification Working Group. 2020⁶).
- 2.1.3 The Study Area comprised the red line boundary and habitats identified within the Site are presented in **Figure 1** of the *Ecological Assessment Report*.
- 2.1.4 A full breakdown of survey methodology is outlined in Section 2.2 of the *Ecological Assessment Report*. The survey was extended to include the additional recording of specific features indicating the presence, or likely presence, of protected species, invasive species and other species of conservation value.

2.2 Defra Biodiversity Metric 4.0

- 2.2.1 The Defra Biodiversity Metric 4.0 provides a way of measuring and accounting for biodiversity losses and gains resulting from development or land management change and has been used to inform this Biodiversity net-gain Assessment.
- 2.2.2 The baseline habitat types were recorded using survey methodology following the *UK Habitat Classification Manual Version 1.1* (UK Habitat Classification Working Group. 2020⁷)⁸ and with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM), Technical Guidance Series '*Guidelines for Preliminary Ecological Appraisal, 2nd Edition*' (CIEEM, 2017)⁹.
- 2.2.3 Criteria set out within the Defra Biodiversity Metric 4.0 Technical Supplement¹⁰ were used to calculate the condition, ecological connectivity and strategic significance of the existing habitats.

⁵ JNCC (2010). Handbook for Phase I Habitat Survey – a Technique for Environmental Audit. JNCC, Peterborough

⁶ Available at: <https://ukhab.org/ukhab-documentation/> (accessed 25/07/2023)

⁷ Available at: <https://ukhab.org/ukhab-documentation/> (accessed 16/05/2023)

⁸ JNCC (2010). *Handbook for Phase 1 habitat survey – a technique for environmental audit*. JNCC, Peterborough.

⁹ CIEEM. (2019). *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

¹⁰ <http://publications.naturalengland.org.uk/publication/5850908674228224>

- 2.2.4 Where habitats are located within a non-statutory designated site or if they are specifically covered by a local planning policy or management plan the strategic significance has been categorised as high. If a habitat has functional value but is not formally recognised in local policy the strategic significance has been categorised as medium. Where the habitat does not fall under any local policies and has limited functional value the strategic significance has been categorised as low.
- 2.2.5 Proposed habitat types, including for creation, enhancement and restoration, were directly assigned UK Habitat Classification category e.g. poor semi-improved grassland translated to modified grassland.
- 2.2.6 Hedgerows are accounted for separately in the Biodiversity Metric 4.0 as these are linear habitats and therefore are measured in kilometres. Units are not directly interchangeable between area-based habitats and linear habitats such as hedgerows.

3 RESULTS

3.1 Habitat Survey Results

Extended Habitat Survey

Onsite

- 3.1.1 The habitats identified within the Site are presented in **Figure 2**. Photographs are presented in **Appendix 1** within the *Ecological Assessment Report*. The extended habitat survey was conducted in suitable weather, with good visibility.
- 3.1.2 The Site, access and cable route is dominated by arable farmland and small sections of three other habitat types as shown below in **Table A5.1**

Table A5.1: Habitats within the Site.

UKHabs/ Metric habitat type	Habitat description	Condition Assessment and rationale
Cereal crop	At the time of survey, land within the Site was dominated by arable land with cereal crops being grown at the time of survey;	N/A
Other neutral grassland	Poor quality neutral grassland is present along the western field boundary of the Site.	Poor – Species-poor and does fails critical criteria A to achieve Moderate or Good.
Modified grassland	Area of roadside vegetation regularly mown and species-poor	Poor – Species-poor and regularly managed with mowing. Several areas of open bare ground
Other woodland; broadleaved	Semi-natural woodland dominated by sycamore <i>Acer pseudoplanatus</i> , ash <i>Fraxinus excelsior</i> and pedunculate oak <i>Quercus robur</i> .	Moderate – Native tree species present, no recognisable NVC community within the ground flora and only two storeys within woodland. No veteran trees or deadwood present.

Developed land; sealed surface	Existing hardstanding associated with Necton Onshore Substation.	N/A
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3.1.3 Additionally, an area of 0.9ha of cereal crop is included within the planning boundary, located approximately 700m south east of the main Site which will be used solely for habitat creation.

4 DEFRA METRIC 4.0 BIODIVERSITY NET-GAIN RESULTS

4.1.1 The proposed development will build an Greener Grid Park facility within arable farmland. This habitat is considered of low ecological value and the habitat is usually regularly disturbed through agricultural intensification.

4.1.2 The current landscape proposals suggest that 1.94ha of land will be occupied by infrastructure for the Greener Grid Park including the associated access roads. The remaining 9.81ha of land will be comprised of 0.3ha of scrub creation, 0.65ha of woodland creation, 0.04ha of a Sustainable Drainage System (SuDS) and the following this, the remaining 8.84ha of land will be retained.

4.1.3 A total of 520m of hedgerow is present within the redline boundary, of which 485m will be retained. Following construction, 25m of these will be reinstated and an additional 330m of species-rich native hedgerow will be created within the Site. 10m of species-poor hedgerow will be lost.

4.1.4 No watercourses are present within the Site.

4.1.5 The BNG calculation based on the existing and proposed habitat areas before and after completion of the Greener Grid Park, demonstrates that an overall net gain of 13.49% (3.56) Habitat Units and 86.45% (2.11) Hedgerow Units.

4.1.6 All trading rules, requiring habitats to be replaced like-for-like or better have been met.

4.1.7 **Figure A7.1** summarises the results of the Biodiversity Net-Gain Assessment. A breakdown of the calculations is provided in the Defra Biodiversity 4.0 Metric Excel spreadsheet which is provided separately in **Annex 1**.

Figure A7.1: Biodiversity Net-Gain Headline Results

FINAL RESULTS				
Total net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>		Habitat units	3.56	
		Hedgerow units	2.11	
		Watercourse units	0.00	
Total net % change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>		Habitat units	13.49%	
		Hedgerow units	86.45%	
		Watercourse units	0.00%	
Trading rules satisfied?		Yes ✓		
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	26.36	29.00	0.00
Hedgerow units	10.00%	2.44	2.68	0.00
Watercourse units	10.00%	0.00	0.00	0.00

Unit requirement met or surpassed ✓
Unit requirement met or surpassed ✓
Unit requirement met or surpassed ✓

5 BIODIVERSITY NET-GAIN STRATEGY

5.1 Discussion

5.1.1 The Environment Act 2021 was introduced in November 2021, however there is currently no statutory requirement for the use of the Defra Biodiversity Metric 4.0 (or subsequent metric) to provide a

specific quantifiable evidence of biodiversity net-gain. This is expected to be enforced in late-2023, however a measurable quantifiable biodiversity net-gain assessment is currently a requirement under Norfolk County Council's local planning policies, although no specific percentage requirement has yet been adopted. Norfolk County Council has announced that following the Environment Act, there will be a commitment to a minimum of 10% biodiversity net-gain for applications within Norfolk.

- 5.1.2 The production of an indicative development design was an iterative process and in-line with current guidance¹¹ AEL were brought into the project team at an early stage to ensure that biodiversity impacts were considered and avoided/mitigated for as far as reasonably possible.
- 5.1.3 The Defra Biodiversity Metric 4.0 provides a quantitative biodiversity net-gain assessment based on habitat impacts alone; however, the values produced do not take into account other proposed qualitative biodiversity enhancements. Current guidance advises that both quantitative and qualitative biodiversity gains should inform a biodiversity assessment to demonstrate that the net-gains are commensurable with biodiversity affected by the development.
- 5.1.4 A Biodiversity Net Gain has been achieved through the Defra metric 4.0 within the Site boundaries.

5.2 Quantifiable Biodiversity Net-Gain Proposals

- 5.2.1 The following habitat enhancement and creation methods are proposed within the Biodiversity 4.0 Metric and once formerly adopted, these enhancement and creation methods can be informed by a 40 year Biodiversity Management Plan:
- 5.2.2 Multiple areas of green open space; these will consist of:
- 330m of species-diverse hedgerow planting;
 - 25m of replaced hedgerow with species-diverse mix.
 - 0.65ha of woodland habitat;
 - 1.2ha of structured scrub creation; and,
 - 0.04ha of Emorsgate EM8 Meadow Mixture for Wetlands within the Sustainable Drainage System (SuDS).
- 5.2.3 These proposals contribute to an overall net gain of biodiversity within the proposed development.

¹¹<https://cieem.net/wp-content/uploads/2019/02/C776a-Biodiversity-net-gain.-Good-practice-principles-for-development.-A-practical-guide-web.pdf>

Annex 1

DEFRA BIODIVERSITY NET GAIN ASSESSMENT METRIC VERSION 4.0 (Separate Document)