Sea Link

Volume 6: Environmental Information

Document: 6.12 Biodiversity Net Gain Feasibility Report

Planning Inspectorate Reference: EN020026

Version: A
March 2025

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(q)

nationalgrid

Page intentionally blank

Contents

Appendix D BNG Good Practice Principles for Development D.1

Executive Summary

Ex1.1.1 The Sea Link Project (hereafter referred to as the 'Proposed Project') is a proposal by National Grid Electricity Transmission plc (hereafter referred to as National Grid) to reinforce the transmission network in the South East and East Anglia.

Ex1.1.2 The Proposed Project is seeking to achieve a 10% net gain in biodiversity to align with National Grid targets (see Section 1.5). There is currently no mandatory requirement for Biodiversity Net Gain (BNG) for Nationally Significant Infrastructure Projects (NSIPs) that are to be consented through Development Consent Orders (DCO) under the Planning Act 2008 (see Section 1.4). As there is no guidance for BNG on NSIPs, guidance devised for Town and Country Planning Act 1990 (TCPA) applications has been applied and modified as relevant. This guidance includes SBM User Guide (DEFRA, 2024) and BNG good practice principles (CIEEM, IEMA & ciria, 2019).

Ex1.1.3 The contents of this BNG Feasibility Report includes:

- Section 1: presents a description of the Proposed Project, and outlines relevant legislation, policies and National Grid's commitments relating to BNG.
- Section 2: presents the methodology used to undertake the assessment.
- Section 3: presents the results of two BNG assessments:
  - One calculation for the Suffolk Onshore Scheme, and
  - One calculation for the Kent Onshore Scheme.
  - This is to ensure that any predicted losses or gains of biodiversity units are captured for each local planning authority as per requests from the local planning authorities.
- Section 4: provides a conclusion on the assessment.
- Section 5: presents an outline strategy for the delivery of additional Environmental Net Gain benefits as part of the BNG delivery for the Proposed Project.

Ex1.1.4 The Proposed Project covers approximately 7153 hectares (ha) in size and comprises the Suffolk Onshore Scheme, the Kent Onshore Scheme and the sections of cable to be installed within the marine environment (Offshore Scheme). The total area covered by the Suffolk and Kent Onshore Schemes is approximately 446 ha. The location of the Suffolk and Kent Onshore Scheme, as indicated by the DCO Order Limits, is shown on Appendix A – Site Location Plan of this report.

Ex1.1.5 As a result of the size of the Order Limits and following a widely used approach on DCO schemes with linear elements, a BNG Parameter Line has been developed to inform the BNG assessment for both the Suffolk and Kent Onshore Schemes. The BNG Parameter Line ends at the landfall of the trenchless installation at both Suffolk and Kent as the cable is to be undergrounded at these locations and surfaces beyond the boundary of intertidal habitats at both locations. As there will be no impacts to intertidal habitats this section has been omitted from the BNG Parameters Line.

Ex1.1.6 Further detail on the rationale behind the use of a BNG Parameters Line is presented in Section 2.2. In summary it is considered that the use of a BNG Parameters Line to

define the area for the BNG assessment, rather than the Proposed Project's Order Limits, is proportionate to the potential impacts of the Proposed Project. This BNG Parameters Line includes all works' areas but does not include land which will not be directly affected, based on the current design, therefore encompasses 'all land necessary to carry out the Proposed Project'. These are hereafter referred to as the 'Suffolk site' and the 'Kent site'.

Ex1.1.7 The Proposed Project is predicted to result in a net loss for area habitat units in both Suffolk and Kent, a net gain in hedgerow units in Suffolk, a net loss in hedgerow units in Kent, a net gain in watercourse units in Suffolk and a net loss in watercourse units in Kent. Table Ex 1.1 and Table Ex 1.2 detail the additional units required to achieve a 10% biodiversity gain in both Suffolk and Kent.

Table Ex 1.1 Additional units required to achieve BNG in Suffolk

Habitat Type	Baseline	Post-Development	Total Net Unit Change	Total Net % Change	Units Required to achieve 10% BNG
Area Units	697.77	510.08	-187.69	-26.90%	+257.47
Hedgerow Units	59.29	67.57	+8.28	+13.96%	0.00
Watercourse Units	10.65	12.46	+1.81	+17.04	0.00

Table Ex 1.2 Additional units required to achieve BNG in Kent

Habitat Type	Baseline	Post-Development	Total Net Unit Change	Total Net % Change	Units Required to achieve 10% BNG
Area Units	323.77	308.56	-15.21	-4.70%	+47.58
Hedgerow Units	17.33	12.39	-4.94	-28.51%	+6.67
Watercourse Units	42.95	40.29	-2.66	-6.20%	+6.96

Ex1.1.8 Table Ex 1.3 presents the combined results of the BNG assessments undertaken for the Suffolk Onshore Scheme e and the Kent Onshore Scheme.

Table Ex 1.3 Additional units required to achieve BNG for the Proposed Project

Habitat Type	Baseline	Post-Development	Total Net Unit Change	Total Net % Change	Units Required to achieve 10% BNG
Area Units	1028.56	817.67	-210.89	-20.50	+313.75
Hedgerow Units	76.62	79.86	+3.24	+4.23	+4.42
Watercourse Units	53.60	50.85	-2.75	-5.13	+8.11

Ex1.1.9 Section 5 of this report detailed the Proposed Project's current BNG position.

1. Introduction

1.1.1 The Sea Link Project (hereafter referred to as the 'Proposed Project') is a proposal by National Grid Electricity Transmission plc (hereafter referred to as National Grid) to reinforce the transmission network in the South East and East Anglia. The Proposed Project is required to accommodate additional power flows generated from renewable and low carbon generation, as well as accommodating additional new interconnection with mainland Europe.

1.1.2 National Grid owns, builds and maintains the electricity transmission network in England and Wales. Under the Electricity Act 1989, National Grid holds a transmission licence under which it is required to develop and maintain an efficient, coordinated, and economic electricity transmission system.

1.1.3 This would be achieved by reinforcing the transmission network with a High Voltage Direct Current (HVDC) Link between the proposed Friston substation in the Sizewell area of Suffolk and the existing Richborough to Canterbury 400 kV overhead line close to Richborough in Kent.

1.1.4 National Grid is also required, under Section 38 of the Electricity Act 1989, to comply with the provisions of Schedule 9 of the Act. Schedule 9 requires licence holders, in the formulation of proposals to transmit electricity, to:

- Schedule 9(1)(a) *'…have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest*;' and
- Schedule 9(1)(b) *'…do what [it] reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects'*.

1.2 Purpose of this Report

1.2.1 The Proposed Project is seeking to achieve a 10% net gain in biodiversity to align with National Grid targets (see Section 1.5), there is currently no mandatory requirement for BNG for Nationally Significant Infrastructure Projects (NSIP) that are to be consented through Development Consent Orders (DCO) under the Planning Act 2008 (see Section 1.4). As there is no guidance for BNG on NSIP, guidance devised for Town and Country Planning Act 1990 (TCPA) applications has been applied and modified as relevant. This guidance includes SBM User Guide (DEFRA, 2024) and BNG good practice principles (CIEEM, IEMA & ciria, 2019).

1.2.2 The purpose of the BNG assessment is to quantify the overall effect of the Proposed Project on the biodiversity value (as measured within the statutory biodiversity metric calculation tool (DEFRA, 2024) (hereafter referred to as the 'SBM') of habitats located within the BNG Parameters Line (See Section 2.2). This is achieved by comparing the baseline habitat biodiversity value with a 'post-development' habitat biodiversity value. The assessment considers the level of proposed habitat loss, retention, enhancement and creation resulting from the Proposed Project.

1.2.3 With this considered, the purpose of this report is to establish whether the achievement of at least a 10% net gain in biodiversity is feasible for the Proposed Project, to align with National Grid project targets.

1.2.4 The contents of this BNG Feasibility Report includes:

- Section 1: presents a description of the Proposed Project, and outlines relevant legislation, policies and National Grid's commitments relating to BNG.
- Section 2: presents the methodology used to undertake the assessment.
- Section 3: presents the results of two BNG assessments (this is to ensure that any predicted losses or gains of biodiversity units are captured for each local planning authority as per requests from the local planning authorities):
  - One calculation for the Suffolk Onshore Scheme, and
  - One calculation for the Kent Onshore Scheme.
- Section 4: provides a conclusion on the assessment.
- Section 5: presents an outline strategy for the delivery of additional Environmental Net Gain benefits as part of the BNG delivery for the Proposed Project.

1.3 The Proposed Project

1.3.1 The Proposed Project would comprise the following elements:

The Suffolk Onshore Scheme

- A connection from the existing transmission network via Friston Substation, including the substation itself. Friston Substation already has development consent as part of other third-party projects. If Friston Substation has already been constructed under another consent, only a connection into the substation would be constructed as part of the Proposed Project.
- A high voltage alternating current (HVAC) underground cable of approximately 1.9 km in length between the proposed Friston Substation and a proposed converter station (below).
- A 2 giga watt (GW) high voltage direct current (HVDC) converter station (including permanent access from the B1121 and a new bridge over the River Fromus) up to 26 m high plus external equipment (such as lightning protection, safety rails for maintenance works, ventilation equipment, aerials, similar small scale operational plant, or other roof treatment) near Saxmundham.
- A HVDC underground cable connection of approximately 10 km in length between the proposed converter station near Saxmundham, and a transition joint bay (TJB) approximately 900 m inshore from a landfall point (below) where the cable transitions from onshore to offshore technology.
- A landfall on the Suffolk coast (between Aldeburgh and Thorpeness).

The Offshore Scheme:

- Approximately 122 km of subsea HVDC cable, running between the Suffolk landfall location (between Aldeburgh and Thorpeness), and the Kent landfall location at Pegwell Bay.

The Kent Onshore Scheme:

- A landfall point on the Kent coast at Pegwell Bay.
- A Transition Joint Bay (TJB) approximately 800 m inshore to transition from offshore HVDC cable to onshore HVDC cable, before continuing underground for approximately 1.7 km to a new converter station (below).
- A 2 GW HVDC converter station (including a new permanent access off the A256), up to 28 m high plus external equipment such as lightning protection, safety rails for maintenance works, ventilation equipment, aerials, and similar small scale operational plant near Minster. A new substation would be located immediately adjacent.
- Removal of approximately 2.2 km of existing HVAC overhead line, and installation of two sections of new HVAC overhead line, together totalling approximately 3.5 km, each connecting from the substation near Minster and the existing Richborough to Canterbury overhead line.

1.3.2 The Proposed Project also includes modifications to sections of existing overhead lines in Suffolk (only if Friston Substation is not built pursuant to another consent) and Kent, diversions of third-party assets, and land drainage from the construction and operational footprint. It also includes opportunities for environmental mitigation and compensation. The construction phase will involve various temporary construction activities including overhead line diversions, use of temporary towers or masts, working areas for construction equipment and machinery, site offices, parking spaces, storage, accesses, bellmouths, and haul roads, as well as watercourse crossings and the diversion of public rights of way (PROWs) and other ancillary operations.

1.4 Site Description

1.4.1 The Proposed Project is approximately 7153 hectares (ha) in size and comprises the Suffolk Onshore Scheme, Kent Onshore Scheme and the sections of cable to be installed within the marine environment (Offshore Scheme). The total area of the Suffolk and Kent Onshore Schemes is approximately 446 ha. The location of the Suffolk and Kent Onshore Scheme, as indicated by the DCO Order Limits, is shown on Appendix A – Site Location Plan of this report.

1.4.2 As a result of the size of the Order Limits and following a widely used approach on DCO schemes with linear elements, a BNG Parameter Line has been developed to inform the BNG assessments for both the Suffolk and Kent Onshore Schemes. The BNG Parameters Line ends at the landfall of the trenchless installation at both Suffolk and Kent as the cable is to be undergrounded at these locations and surfaces beyond the boundary of intertidal habitats at both locations. As there will be no impacts to intertidal habitats, this section has been omitted from the BNG Parameters Line. Further detail on the rationale behind the use of a BNG Parameters Line is presented in Section 2.2. In summary it is considered that the use of a BNG Parameters Line to define the area for the BNG assessment, rather than the Order Limits, is proportionate to the potential impacts of the Proposed Project. This BNG Parameters Line includes all works' areas

but does not include land not directly affected, based on the current design, therefore encompasses ‘all land necessary to carry out the Proposed Project’.

1.4.3 Two BNG Parameters Lines have been defined to undertake the BNG assessment. One to encompass relevant land within the Suffolk Onshore Scheme and one to encompass relevant land within the Kent Onshore Scheme. These are hereafter referred to as the ‘Suffolk Site’ and the ‘Kent Site’.

1.4.4 The total area of the BNG Parameters Line and details of the broad habitat types located at the two sites is detailed below. The total area of the BNG Parameters Line for both the Suffolk and Kent Sites is 308.84 ha.

Suffolk Site

1.4.5 The Suffolk Site, indicated by the BNG Parameters Line on the Suffolk BNG Baseline Habitat Plan presented in Appendix B, is approximately 212.39 ha in size and comprises the following broad habitat types:

- Cropland;
- Grassland;
- Heathland and shrub;
- Lakes;
- Urban;
- Watercourse footprint
- Woodland and forest, and
- Individual trees.

1.4.6 Linear terrestrial habitats present within the BNG Parameters Line include:

- Line of trees;
- Native hedgerow;
- Native hedgerow with trees;
- Species-rich native hedgerow; and
- Species-rich native hedgerow with trees.

1.4.7 Watercourse habitats present within the BNG Parameters Line include:

- Ditches; and
- Other rivers and streams.

Kent Site

1.4.8 The Kent Site, indicated by the BNG Parameters Line on the Kent BNG Baseline Habitat Plan presented in Appendix B, is approximately 96.45 ha in size and comprises the following broad habitat types:

- Cropland;
- Grassland;

- Heathland and shrub;
- Lakes;
- Sparsely vegetated land;
- Urban;
- Wetland;
- Woodland and forest; and
- Individual trees.

1.4.9 Linear terrestrial habitats present within the BNG Parameters Line include:

- Native hedgerow; and
- Native hedgerow with trees.

1.4.10 Watercourse habitats present within the BNG Parameters Line include:

- Ditches; and
- Other rivers and streams.

1.5 Policy Context

1.5.1 This section sets out the government policy, legislation and guidance that applies to BNG.

25 Year Environment Plan

1.5.2 The government's 25 Year Environment Plan (2018) sets out government action to help the natural world regain and retain good health. It aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats.

Environmental Audit Committee Report

1.5.3 Parliament's Environmental Audit Committee Report (June 2021) sets out that biodiversity and well-functioning ecosystems are critical for human existence, economic prosperity, and a good quality of life. It notes that biodiversity is declining at a faster rate than at any time in human history

1.5.4 The UK is one of the most nature-depleted countries in the world. The State of Nature 2023 report has shown that since the 1970s 41 per cent of all UK species surveyed have declined, while 15 per cent of species within the UK are threatened with extinction. The abundance of the species of greatest conservation concern (the UK's priority species) have declined by 60 per cent.

Environment Act 2021

1.5.5 In England, BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (Town and Country Planning Act 1990) (as inserted by Schedule 14 of the Environment Act 2021) (Environment Act 2021) and most development that requires planning permission, approved by local planning authorities, must provide BNG.

Schedule 7A specifies that a minimum of 10% BNG must be delivered. The legislation introduced the Statutory Biodiversity Metric which is used to measure the biodiversity value of habitats for the purposes of BNG.

1.5.6 To comply with the Environment Act, land committed to BNG must be maintained, managed and monitored for a minimum period of 30 years through a legal mechanism such as a section 106 agreement or a Conservation Covenant. Committing land to BNG removes that land from consideration for future development.

1.5.7 Whilst BNG is a legal obligation for TCPA in England, the provisions in Schedule 15 of the Environment Act 2021 to make at least 10% BNG a legal obligation for Nationally Significant Infrastructure Projects (NSIP) are not yet in force. These are anticipated to be introduced for NSIP in November 2025.

Town and Country Planning Act 1990 (England)

1.5.8 The National Planning Policy Framework (Ministry of Housing, Communities & Local Government, 2024) sets out the Government's planning policies for England and how these should be applied. Paragraph 192 sets out that plans should 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.

1.5.9 The Biodiversity Gain Hierarchy and its effect for the purpose of the statutory framework for biodiversity net gain is set out in Articles 37A and 37D of the Town and Country Planning (Development Management Procedure) (England) Order 2015 (as inserted by Schedule 14 of the Environment Act 2021).

1.5.10 In relation to all onsite habitats which are adversely affected by the development, the adverse effect should be compensated by prioritising in order, where possible, the enhancement of existing onsite habitats, creation of new onsite habitats, allocation of registered offsite gains and finally the purchase of biodiversity credits.

1.5.11 Developers should submit a Biodiversity Gain Plan (a form) to the local planning authority(s) after they grant planning application. The Biodiversity Gain Plan shows how the applicant will achieve BNG and provides evidence for the BNG decisions. Unless the development is exempt, the applicant cannot commence the development until the local planning authority approves the biodiversity gain plan and biodiversity metric tool calculation. Planning authorities must take into account how the Biodiversity Gain Hierarchy has been applied and if it has not been applied the reason for that or absence of a reason when determining whether to approve the Biodiversity Gain Plan.

1.5.12 Whilst the Proposed Project is not being consented under the Town & Country Planning Act regime, the TCPA provisions for BNG provide a useful guide for how to consider BNG. The Proposed Project has sought to follow the spirit of the TCPA approach.

Nationally Significant Infrastructure Projects

1.5.13 Biodiversity net gain is not currently mandatory for Nationally Significant Infrastructure Projects (NSIP). The Department for Environment, Farming and Rural Affairs (Defra) has previously communicated its intention to consult on BNG for NSIP with implementation of any legal obligation expected to be introduced in November 2025.

1.5.14 There is currently no government guidance available on BNG for NSIPs. National Policy Statements EN-1 (Department for Energy Security & Net Zero, 2023)

Overarching National Policy Statement for Energy and EN-5 Electricity Networks (Department for Energy Security & Net Zero, 2024) provide the policy context for BNG as it currently applies to NSIPs, and these are set out in more detail below.

National Policy Statements

1.5.15 National Policy Statements (NPS) are produced by government. There are twelve adopted NPS setting out government policy on different types of national infrastructure development and include NPS EN-1 Overarching National Policy Statement for Energy, and NPS EN-5 Electricity Networks. The NPS take account of wider government policy relating to the mitigation of, and adaptation to, climate change. The NPS also include any other policies or circumstances that ministers consider should be taken into account in decisions on infrastructure development.

1.5.16 NPS are the primary policy basis for decision making by the relevant Secretary of State (SoS); they set out matters with which applicants need to demonstrate compliance, and as such they have weight in the decision-making process.

1.5.17 NPS EN-1 Overarching National Policy Statement for Energy sets out in paragraph 4.6.1 that:

1.5.18 *"Environmental net gain is an approach to development that aims to leave the natural environment in a measurably better state than beforehand. Projects should therefore not only avoid, mitigate and compensate harms, following the mitigation hierarchy, but also consider whether there are opportunities for enhancements."*

and;

1.5.19 *"Biodiversity net gain is an essential component of environmental net gain. Projects in England should consider and seek to incorporate improvements in natural capital, ecosystem services and the benefits they deliver when planning how to deliver biodiversity net gain."* (4.6.2).

1.5.20 NPS EN-1 directs that when delivering biodiversity net gain off-site, developments should do this in a manner that best contributes to the achievement of relevant wider strategic outcomes, for example by increasing habitat connectivity, enhancing other ecosystem service outcomes, or considering use of green infrastructure strategies (paragraph 4.6.12).

1.5.21 In addition to delivering biodiversity net gain, NPS EN-1 advises that developments may also deliver wider environmental gains and benefits to communities relevant to the local area, and to national policy priorities, such as reductions in reduced flood risk, improvements to air or water quality, climate adaptation landscape enhancement, increased access to natural greenspace, or the enhancement, expansion or provision of trees and woodlands (paragraph 4.6.13).

1.5.22 NPS EN-5 Electricity Networks Infrastructure states that when planning and evaluating a proposed development's contribution to environmental and biodiversity net gain, it will be important – for both the applicant and the SoS – to supplement the generic guidance set out in EN-1 (Section 4.6) with recognition that the linear nature of electricity networks infrastructure can allow for excellent opportunities to:

i. reconnect important habitats via green corridors, biodiversity stepping zones, and reestablishment of appropriate hedgerows; and/or

ii. connect people to the environment, for instance via footpaths and

cycleways constructed in tandem with environmental enhancements (paragraph 2.5.1).

Local Planning Policy

Relevant Local Planning Policy for Kent

Thanet District Council

1.5.23 The Thanet District Council Local Plan (Thanet District Council, 2020), adopted July 2020 include the local policy SP30 – Biodiversity and Geodiversity Assets which states:

"Development proposals will, where appropriate, be required to make a positive contribution to the conservation, enhancement and management of biodiversity and geodiversity assets resulting in a net gain for biodiversity assets through the following measures:

1) the restoration / enhancement of existing habitats,

2) the creation of wildlife habitats where appropriate, by including opportunities for increasing biodiversity in the design of new development

3) the creation of linkages between sites to create local and regional ecological networks,

4) the enhancement of significant features of nature conservation value on development sites,

5) protect and enhance valued soils,

6) mitigating against the loss of farmland bird habitats.

Sites should be assessed for the potential presence of biodiversity assets and protected species. For sites where important biodiversity assets, including protected species and

habitats including SPA functional land, or other notable species, may be affected, an ecological assessment will be required to assess the impact of the proposed development on the relevant species or habitats. Planning permission will not be granted

for development if it results in significant harm to biodiversity and geodiversity assets, which cannot be adequately mitigated or as a last resort compensated for, to the satisfaction of the appropriate authority."

Dover District Council

1.5.24 The Dover District Local Plan to 2040 – Adopted October 2024 (Dover District Council, 2024) includes the relevant policy NE1 – Biodiversity Net Gain, which states:

1 Development proposals must provide a minimum of 10% biodiversity net gain (BNG).

2 Proposals for BNG should be delivered on-site, taking into account local green infrastructure priorities set out in the Local Nature Recovery Strategy, the Dover District Green Infrastructure Strategy and the Kent Biodiversity Strategy. Only if it can be demonstrated that ecologically meaningful BNG that contributes to the

local green infrastructure network cannot be practically and/or feasibly achieved within the site boundary, will the Council consider off-site alternatives in line with the biodiversity gain hierarchy.

3 Where off-site biodiversity gain is proposed, the Kent and Medway Local Nature Recovery Strategy, once published, should be used to guide the locations of BNG. In addition, the following locational hierarchy should be followed where possible: (i) Within Dover District;

(ii) Within neighbouring local authority areas;

(iii) Within Kent and Medway;

(iv) Within the North Downs or North Kent Plain National Character Area;

(v) Elsewhere in England.

Only when it is demonstrated that there is no possibility of delivering BNG within the above locational hierarchy will the purchase of statutory credits be supported.

4 Development proposals must provide sufficient BNG information to satisfy the Council that the BNG requirement is capable of being successfully discharged. This should include a draft Biodiversity Gain Plan and draft Habitat Management and Monitoring Plan that follow the DEFRA and Natural England templates which should also include the following local considerations:

(i) The method of BNG delivery (for example on or off site);

(ii) Evidence to demonstrate that the biodiversity gain hierarchy and locational hierarchy set out in criteria 3 of this Policy has been followed;

(iii) The Statutory Biodiversity Metric should have regard to the Interim Strategic Significance Guidance for BNG in Kent and Medway (as updated), until superseded by the Local Nature Recovery Strategy;

(iv) Where baseline habitat of high or very high distinctiveness is retained on-site, the draft Habitat Management and Monitoring Plan should include proposals to secure its management to ensure that no deterioration would occur that results in reduced overall BNG;

v) In deciding whether any on-site BNG is 'significant' regard shall be had to local guidance on its definition, to inform future management and monitoring requirements.

5 BNG proposals will be secured by condition and/or legal agreement with the Council or a conservation covenant with a responsible body. Where legal agreements are with the Council this will include a requirement to cover the Council's costs associated with the long-term monitoring of the BNG delivery.

6 Proposals to create biodiversity sites in appropriate locations, including biodiversity enhancement sites and sites associated with delivering the key outcomes of the Dover Green Infrastructure Strategy, and the Local Nature Recovery Strategy when published, will be supported.

7 The Council will encourage BNG that helps deliver nature-based solutions to climate change as well as biodiversity loss, such as the restoration and creation of ecosystems to protect shorelines, protect communities from flooding, or increasing carbon sequestration"

Relevant Local Planning Policy for Suffolk

1.5.25 The East Suffolk Council Local Plan (East Suffolk Council, 2020) includes the relevant policy SCLP10.1: Biodiversity and Geodiversity which states:

"Development will be supported where it can be demonstrated that it maintains, restores or enhances the existing green infrastructure network and positively contributes towards biodiversity and/or geodiversity through the creation of new habitats and green infrastructure and improvement to linkages between habitats, such as wildlife corridors and habitat 'stepping stones'. All development should follow a hierarchy of seeking firstly to avoid impacts, mitigate for impacts so as to make them insignificant for biodiversity, or as a last resort compensate for losses that cannot be avoided or mitigated for. Adherence to the hierarchy should be demonstrated.

Proposals that will have a direct or indirect adverse impact (alone or in-combination with other plans or projects) on locally designated sites of biodiversity or geodiversity importance, including County Wildlife Sites, priority habitats and species, will not be supported unless it can be demonstrated with comprehensive evidence that the benefits of the proposal, in its particular location, outweighs the biodiversity loss.

New development should provide environmental net gains in terms of both green infrastructure and biodiversity. Proposals should demonstrate how the development would contribute towards new green infrastructure opportunities or enhance the existing green infrastructure network as part of the development. New development must also secure ecological enhancements as part of its design and implementation, and should provide a biodiversity net gain that is proportionate to the scale and nature of the proposal…"

1.6 National Grid Commitments

National Grid's duties under the Electricity Act 1989

1.6.1 National Grid holds a transmission licence under the Electricity Act 1989 (the 'Act') (Electricity Act 1989) and is required to develop and maintain an efficient, coordinated and economical electricity transmission system and to facilitate competition in the supply and generation of electricity. National Grid also has an obligation under Section 38 and Schedule 9 of the Act to consider ways to preserve amenity.

1.6.2 National Grid interprets amenity to be the natural environment, cultural heritage, landscape and visual quality. National Grid's stakeholder, community and amenity policy[1] describes the ten commitments it has made to the way it carries out electricity works in the UK to provide safe, reliable and affordable transmission networks.

How National Grid is Regulated

1.6.3 National Grid operates as a monopoly regulated by Ofgem through a framework known as RIIO[2] which ensures National Grid is charging fair prices for the services it provides. The current regulatory period is known as RIIO-T2 and runs from 2021 to 2026. The next regulatory period, RIIO-T3, will run from 2026 to 2031.

[1] National Grid *Our Stakeholder, Community and Amenity Policy*

[2] RIIO: Revenue = Incentives + Innovation + Outputs

1.6.4 Consumers fund National Grid project costs through their electricity bills. Ofgem holds National Grid to account on the decisions it makes to ensure value for money for consumers. National Grid must meet its legal obligations and address policy requirements that apply to its developments, but it must do so efficiently and economically in accordance with its licence duties.

National Grid's Corporate BNG Commitments

1.6.5 National Grid's RIIO-T2 Business Plan (2021 – 2026)[1] included a commitment to deliver 10% environmental net gain (including at least 10% biodiversity net gain) on its construction projects. National Grid made these commitments three years in advance of formal legislation. The RIIO-T2 Environmental Action Plan sets firm targets for the five-year period, with the following commitments to be funded:

- deliver at least 10% environmental net gain (including at least 10% BNG) on its construction projects.
- plus, incentive for delivering more than 15% BNG; penalty if less than 5% delivered.

1.6.6 Since T2, legislation, policy requirements and stakeholder expectations for delivering BNG plus wider benefits have developed and evolved. To understand more of its stakeholder expectations, National Grid launched an external consultation focussed on its Nature Positive approach (February 2024). The purpose of the consultation was to gather views on National Grid's approach to nature for the RIIO-T3 period which included specific sections focussing on its BNG ambition and approach.

1.6.7 Stakeholder feedback indicated that delivering 10% BNG was considered to be the norm, with some stakeholders indicating that a higher percentage (20% - 30% enhancement) should be delivered on large construction projects.

1.6.8 Notwithstanding calls for a percentage greater than 10% National Grid's strategy is to deliver 'quality' over 'quantity' and ensure that its BNG levers the greatest value and benefit from consumer-funded BNG. Ten percent is not seen as a specific target or cap and National Grid will seek opportunities to deliver more than 10% where viable.

1.6.9 For the RIIO-T3 period (2026-2031)[2], as well as remaining legally and policy compliant, National Grid aims to maximise the benefits from consumer-funded BNG by delivering wider benefits. The T3 Environmental Action Plan proposal builds on T2 and commits to:

- deliver a minimum of 10% BNG plus a quality and richness of outcomes (wider environmental and societal benefits);
- explicitly adds the opportunity to provide BNG that delivers environmental education, learning and skills (EELS); and
- removes the incentive / penalty.

1.6.10 Wider environmental and social benefits could include providing access to new greenspaces for the wider public and user groups for their enjoyment of nature and

[1] RIIO T-2 Business Plan (2021-2026)
[2] RIIO T-3 Business Plan (2026 - 2031)

open space, for study, and for wellbeing (e.g. schools, colleges, universities, interest groups and clubs).

1.6.11 Environmental education, learning and skills (EELS) could include using sites as an outdoor classroom to develop and exhibit environmental skills and techniques, from plant and wildlife identification to being a Forest Schools base, to map-making and orienteering. Sites could be used by people and groups at every educational stage.

1.6.12 BNG and any wider environmental or societal benefit would not duplicate or double count with any potential future 'community benefit'.

National Grid's approach to BNG for Nationally Significant Infrastructure Projects

1.6.13 As explained above, there is currently no legal obligation for BNG on NSIP projects. However, National Policy Statements EN-1 and EN-5 set out the policies for environmental net gain and BNG as it currently applies to NSIP. Legal BNG obligations are expected to be introduced for NSIP in November 2025. There is currently no NSIP specific guidance available.

1.6.14 In the absence of legal obligation or NSIP-specific guidance, National Grid's approach to BNG for NSIP projects is to:

- meet the policy requirements within the current NPS;
- deliver its corporate commitments to deliver at least 10% BNG with wider benefits;
- maximise the benefits and value from consumer funded BNG; and
- follow the spirit of the TCPA BNG legislation and guidance, including using the Statutory Biodiversity Metric.

1.6.15 For NSIP projects National Grid's approach to the BNG hierarchy diverges slightly from that set out in TCPA legislation. For the most part National Grid NSIPs are long linear projects which are routed across third party land and the infrastructure allows retention of the original habitat (often agricultural) within the Order Limits, above underground cables and below overhead line spans. Projects consented under TCPA tend to be 'point-based' sites where the development often results in substantial permanent loss of habitat within the development boundary.

1.6.16 National Grid's approach is to deliver the best outcomes for nature from consumer-funded BNG.

1.6.17 National Grid will deliver BNG which can be managed and maintained for at least 30 years and which will be undisturbed by future development, because (i) continuity of habitat delivers better outcomes for nature, and (ii) ensures better value for money for consumers by avoiding having to expensively replace BNG habitat to accommodate future development.

1.6.18 Better outcomes for nature and value for money for consumers would likely occur where National Grid delivers BNG with expert partners, rather than through National Grid acquiring land to deliver BNG 'in-house'. It is proposed that BNG will be delivered both on-site and off-site in the following ways and which is set out in more detail in Section 5.2 of this report :

1.6.19 National Grid will provide on-site BNG where:

- it is on land in its ownership such as around sub-stations, converter stations or sealing end compounds;
- it is in locations where it can also meet requirements for environmental mitigation, such as landscape screening; and,
- where the location of any on-site BNG would not prejudice future site expansion needs or customer connections into the site.

1.6.20 National Grid's approach is to provide any on-site BNG in a coordinated manner in locations that do not prejudice the siting or routeing of future electricity infrastructure, such as substation extensions or customer connections. This approach is in the best interests of nature and is economic and efficient because it safeguards onsite BNG and means that on-site landscape screening or other environmental mitigation can also contribute towards BNG.

1.6.21 Biodiversity net gain delivered off-site would be delivered through expert partners or purchase of biodiversity units from commercially registered providers.

2. Methodology

2.1 Biodiversity Net Gain and NSIPs

2.1.1 There is currently no legislative requirement for BNG for NSIPs, however there are policy drivers within the NPS (EN-1 and EN-5). As such there is also no guidance for the application of BNG for NSIPs. Current guidance for BNG assessments has been developed for the mandatory TCPA framework. In the absence of specific BNG guidance relating to NSIPs this assessment has followed the majority of the principles and rules of the TCPA guidance documentation where appropriate.

2.2 BNG Parameters Line

2.2.1 The red line boundary of a development site which is subject to a Town and Country Planning Act application is used as the boundary for establishing the on-site baseline when undertaking BNG assessments of TCPA projects. However, for NSIP projects, the application redline boundary is defined by the Order Limits which include the area within which permanent infrastructure is to be located (identified by the Limits of Deviation (LoD)) as well as land required for construction of the Proposed Project. Therefore, rather than showing only the anticipated permanent footprint of the Proposed Project once it is complete, Order Limits for NSIPs identify the limits within which a project may be carried out including both permanent land take during operation and areas to be temporarily used during construction. The Order Limits incorporate a spatial tolerance to allow small changes to the location of infrastructure or construction activity which may be required to accommodate for unexpected issues in the routing and siting of infrastructure, for example when more detailed ground investigation information is available. Because of this, the Order Limits do not represent the realistic extent to which habitat will be impacted by a development.

2.2.2 The Proposed Project is a long linear NSIP and given its nature the Order Limits for the Proposed Project incorporate a wider area than the maximum construction area. Undertaking a BNG assessment against the entirety of the land within the Order Limits would result in the baseline habitat area and the 'post-development' area to be significantly over estimated. Thereby resulting in BNG targets that are not proportionate to the potential impacts of the Proposed Project. As such the BNG Parameters Line has been produced for the purposes of informing this BNG assessment. The BNG Parameters Line is based on the design drawings submitted with the DCO application and includes all land within the Order Limits where permanent or temporary impacts to habitats are reasonably expected to occur).

2.2.3 It is therefore considered that the use of a BNG Parameters Line as the boundary for the BNG assessment, rather than the Order Limits, is proportionate to the potential impacts of the Proposed Project.

2.2.4 The BNG Parameters Line ends at the landfall of the trenchless cable installation at both Suffolk and Kent Sites as the cable is to be undergrounded at these locations and surfaces beyond the boundary of intertidal habitats at both locations. As there will be no impacts to intertidal habitats, this section has been omitted from the BNG Parameters Line.

2.3 Statutory Biodiversity Metric (SBM)

2.3.1 A BNG assessment involves making a comparison between the biodiversity value of habitats present within the BNG Parameters Line prior to development (i.e. the 'baseline') and the predicted biodiversity value of habitats following the completion of the development (i.e. 'post-development'). The comparison is made in terms of 'biodiversity units', with a 'biodiversity metric' providing the mechanism to allow biodiversity values to be calculated and compared.

2.3.2 The SBM calculates the overall loss or gain of biodiversity as a result of a development by assessing the distinctiveness (i.e. type of habitat and its value), condition, extent, and strategic significance of habitats on site pre-development (baseline) and post-development, including both permanent and temporary land-take areas. To achieve a BNG, the biodiversity unit score must have a post-development score higher than the baseline score.

2.3.3 When calculating the post-development biodiversity units, the SBM includes a series of standard 'risk multipliers' to account for the inherent risk of creating and restoring habitats, the time taken to establish habitats and the location of the mitigation in relation to the habitats lost on site. The risk multipliers have the effect of reducing the value of the proposed habitats, which means larger areas, habitats of higher distinctiveness, and/or conditions are required to mitigate losses and achieve net gain.

- As detailed in Section 2.1, there is currently no guidance for BNG and NSIP's. As such this BNG assessment follows the BNG guidance created for TCPA where suitable. The following deviations from the SBM guidance have been made: Trading rules[1] have not been accounted for when undertaking this assessment. It is considered that this would result in an unwieldy BNG requirement and may result in the Proposed Project being constrained in delivering its BNG requirement. This is not to say that trading summaries are to be ignored when exploring options for BNG delivery, the trading rules summaries are to be used as a guide for habitats and/or distinctiveness levels that the Proposed Project aspires to deliver.
- Due to the linear nature of the Proposed Project, meaning that it encompasses land that is within the ownership of a large number of landowners across both the Suffolk and Kent Onshore Scheme, it is not considered feasible to secure legal obligations for active management of land within the BNG Parameters Line (for a 30 year period of monitoring and maintenance). This is because only temporary access to some of this land is required, and the habitat that is being delivered as mitigation is identified in the Environmental Statement (ES) (DCO Volume 6 Environmental Statement). Therefore, it is assumed that such habitats are to be subject to the same management they were under pre-development and as such will achieve target conditions that are the same as they are at baseline, post-development.

Baseline Data

2.3.4 Phase 1 habitat surveys, habitat condition assessment surveys, arboricultural surveys and Modular River Physical (MoRPh) surveys of watercourses have been undertaken for the Proposed Project between January 2022 and January 2025. The results from these surveys , have been used to inform the baseline BNG assessment presented in

[1] The minimum habitat creation and enhancement requirements to compensate for specific habitat losses, up to the point of no net loss. They are based on the habitat type and distinctiveness of the lost habitat.

this report. Baseline habitat information can be found within the following documents: **Application Document 6.3.2.2.A Appendix 2.2.A Extended Phase 1 Habitat Survey Report** and **Application Document 6.2.2.2 Part 2 Suffolk Chapter 2 Ecology and Biodiversity** for the Suffolk Onshore Scheme; and **Application Document 6.3.2.2.A ES Appendix 2.2.A Extended Phase 1 Habitat Survey Report** and **Application Document 6.2.3.2 Part 3 Kent Chapter 2 Ecology & Biodiversity** for the Kent Onshore Scheme.

2.3.5 All baseline habitats identified within both the Suffolk Site and Kent Site were assigned a condition level using the condition assessment criteria outlined in the relevant guidance documents (DEFRA, 2024), by a suitably experienced BNG specialist. The data was aggregated and entered into the SBM to calculate the baseline biodiversity units.

2.3.6 For watercourse habitat categories, associated distinctiveness, and condition scores are approached differently to area-based habitats. A desk study was undertaken to identify all watercourse habitats present within the BNG Parameters Line using the web based 'Discovering Priority Habitat in England' river data map (Association, 2024). River habitats were assigned a habitat category and distinctiveness using a combination of The Natural Environment and Rural Communities (NERC) Section 41 (gov.uk, 2006) Priority Habitat descriptions, and River Naturalness Assessment class scores.

Post-Development Data

2.3.7 Information provided by the Proposed Project's design team and that contained in the Environmental Statement (DCO Volume 6 Environmental Statement) was utilised to determine the post-development habitats regarding retention, temporary loss or permanent loss. Target condition scores for the proposed habitats to be created were assigned in-line with the appropriate guidance document and professional judgement.

2.3.8 Habitats which are going to be impacted by the Proposed Project, either temporarily or permanently, and how they have been defined post-development, have been assessed depending on the nature of the works in each area. A large proportion of the habitats within the BNG Parameters Line will only be subject to short duration temporary impacts. Habitats that are impacted for less than two years (therefore expected they will return to their baseline habitat type and condition within two years of the commencement of works) have been assessed as 'retained' within the SBM. If habitats are impacted for less than two years but they cannot be reinstated to their baseline condition within the two-year time frame due to their better condition or higher distinctiveness, they must be 'recreated'. To capture this within the metric, these habitats are lost and then detailed as created in line with their baseline habitat type and condition.

2.3.9 New habitats proposed as part of the Proposed Project as shown within **Application Document 7.5.7.1 Outline Landscape and Ecological Management Plan – Suffolk** (Figure 1 Saxmundham Converter Station Outline Landscape Mitigation and Figure 5 Friston Substation Outline Landscape Mitigation) and **Application Document 7.5.7.2 Outline Landscape and Ecological Management Plan – Kent** (Figure 1 Minster Converter and Substation Outline Landscape Mitigation) were converted to UKHab Classification categories before being digitised into GIS to produce the BNG Post-Development Habitats Plans provided in Appendix C. Target condition scores for the proposed habitats were selected in accordance with SBM guidance documents as well as based on professional judgement to ensure the condition scores selected were realistic. The data was utilised to predict the post-development biodiversity units.

Habitat Distinctiveness

2.3.10 Habitat distinctiveness is a measure based on the type of habitat and its distinguishing features. Habitats of higher distinctiveness are typically rarer, more valuable, harder to recreate and are typically considered priority habitats. Habitats of lower distinctiveness are more common and are easier to recreate. Habitat distinctiveness ranges from 'Very High', 'High', 'Medium', 'Low' and 'Very Low'.

Strategic Significance

2.3.11 The SBM requires that the strategic significance (hereafter referred to as 'SS') of all baseline and post-development habitats be defined. SS refers to strategic locations for local biodiversity and nature improvements, identified within local planning policies. The process of how the SS of a habitat is assessed is shown in Table 2.1.

Table 2.1 Strategic significance (SS) guidance

Strategic Significance Category	Description
High	Where there is a published Local Nature Recovery Strategy (LNRS) assign 'High' SS if: the location of the habitat parcel has been mapped in the Local Habitat Map as an area where a potential measure has been proposed to help deliver the priorities of that LNRS; and, the Proposed Project is consistent with the potential measure proposed for that location. OR Where there is no published LNRS, but the habitat type is mapped and described as locally ecologically important within a specific location within documents specified by the relevant planning authority. If the Proposed Project is proposed to contribute towards priorities or measures set out in the LNRS (or alternative strategy), assign 'Low' SS to the baseline habitat and 'High' SS to the proposed habitat.
Medium	This category cannot be applied where the LNRS is published, or where the habitat and location is included within other strategic documents specified by the relevant planning authority. Using professional judgement, assign 'Medium' SS if: it can be explained how the habitat type is ecologically important within a specific location; and/or, it can be demonstrated the importance of that habitat in providing ecological linkage to other strategically significant locations.

Strategic Significance Category	Description
Low	Where the definitions for 'High' and 'Medium' strategic significance are not met. If the Proposed Project falls within a plan area, but either of the baseline or post-development habitats do not contribute to specific actions and priorities outlined in these plans, 'Low' SS should be assigned.

2.3.12 As part of this assessment, the following relevant documents were reviewed to determine the SS of the habitats on the Suffolk Site:

- East Suffolk Council Local Plan (East Suffolk Council, 2020);
- Magic maps (DEFRA, 2024);
- River Basin Management Plans (HM Government, 2024);
- Priority River Habitat – Rivers (England) (Natural England, 2023); and
- **Application Document 6.3.2.2.A Appendix 2.2.A Extended Phase 1 Habitat Survey Report**.

2.3.13 As part of this assessment, the following relevant documents were reviewed to determine the SS of the habitats on the Kent Site:

- Thanet District Council Local Plan, adopted July 2020 (Thanet District Council, 2020);
- The Dover District Local Plan to 2040 – Adopted October 2024 (Dover District Council, 2024)
- The Kent Biodiversity Strategy 2020 to 2045 (Kent Nature Partnership, 2020);
- Magic maps (DEFRA, 2024) ;
- River Basin Management Plans (HM Government, 2024);
- Priority River Habitat – Rivers (England) (Natural England, 2023);
- **Application Document 6.3.2.2.A Appendix 2.2.A Extended Phase 1 Habitat Survey Report**, and
- State of Nature in Kent 2021 (Kent Nature Partnership, 2021).

BNG Good Practice Principles of Development

2.3.14 The BNG Good Practice Principles for Development are a set of ten principles which "*set out good practice for achieving Biodiversity Net Gain and must be applied all together, as one approach*" (CIEEM, IEMA & ciria, 2019). These principles are as follows:

- Principle 1. Apply the Mitigation Hierarchy;
- Principle 2. Avoid losing biodiversity that cannot be offset by gains elsewhere;
- Principle 3. Be inclusive and equitable ;

- Principle 4. Address risks;
- Principle 5. Make a measurable Net Gain contribution ;
- Principle 6. Achieve the best outcomes for biodiversity;
- Principle 7. Be additional;
- Principle 8. Create a Net Gain legacy;
- Principle 9. Optimise sustainability; and
- Principle 10. Be transparent.

2.3.15 This assessment has adhered to this step-by-step process to ensure that best practices are followed. This is evidenced in Section 3.5 initially, with a more comprehensive breakdown provided in Appendix D.

Assumptions and Limitations

2.3.16 In undertaking the calculation, the following assumptions have been made:

- Where habitat condition data was not available due to land access limitation, habitat condition has been assigned using a precautionary approach i.e. assigned a pass or maximum score on condition criteria where evidence of failure is not available. However, for some habitat parcels, where adjacent habitat is classified as the same habitat type to an area that has condition assessment data available, this adjacent habitat was assigned the same condition.
- Watercourse crossings have assumed to be undertaken using a culvert, or a similar construction type. Any haul roads and temporary bridges over watercourses have been assumed to be within the construction swathe.
- It is assumed that any habitat to be re-instated post-development outside of the converter station locations will be returned to the landowner following the re-instatement period of the habitat. It is assumed that the reinstated habitats will be returned to their baseline condition and thereafter managed as they were prior to the Proposed Project. However, it is also assumed that the management of these habitats will not be secured for a 30-year period but as the habitats are common and widespread habitats within the agricultural landscape it is anticipated that achieving target condition and habitat type is feasible.
- Where impacted habitats can be restored to baseline habitat type and condition within two years of the initial impact, these impacts will be classified as temporary and input into the SBM as retained habitat.
- The BNG Parameters Line ends at the landfall of the trenchless installation at both Suffolk and Kent as the cable is to be undergrounded at these locations and surfaces beyond the boundary of intertidal habitats at both locations. As there will be no impacts to intertidal habitats this section has been omitted from the BNG Parameters Line.

2.3.17 The majority of Proposed Project components that will have a temporary impact of more than two years fall within the cable construction swathe, as such these temporary impacts have been input into the SBM with a delay in creation of three years for Kent and four years for Suffolk as this presents the longest delay in the recreation of habitats within the BNG Parameters Line.

2.3.18 Only a proportion of the total amount of proposed landscape planting has been included within the BNG assessment, this is to account for the potential of incoming connections over the lifetime of the asset. Total landscaping areas are show in **Figure 1 Saxmundham Converter Station Outline Landscape Mitigation** and **Figure 5 Friston Substation Outline Landscape Mitigation** of **Application Document 7.5.7.1 Outline Landscape and Ecological Management Plan – Suffolk**; and **Figure 1 Minster Converter and Substation Outline Landscape Mitigation** of **Application Document 7.5.7.2 Outline Landscape and Ecological Management Plan – Kent**. With landscaping included within the BNG assessment show in Appendix B.

2.3.19 The following documents as well as information supplied by the design team, have informed this BNG assessment:

- **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project**;
- **Application Document 6.2.2.2 Part 2 Suffolk Chapter 2 Ecology and Biodiversity**;
- **Application Document 6.3.2.2.A Appendix 2.2.A Extended Phase 1 Habitat Survey Report**;
- **Application Document 6.2.3.2 Part 3 Kent Chapter 2 Ecology & Biodiversity**;
- **Application Document 6.3.3.2.A ES Appendix 3.2.A Extended Phase 1 Habitat Survey Report**;
- **Application Document 7.5.7.1 Outline Landscape and Ecological Management Plan – Suffolk**;
- **Application Document 7.5.7.2 Outline Landscape and Ecological Management Plan – Kent**;
- **Application Document 6.10 Arboricultural Impact Assessment** (Appendix A Tree Constraints Plans Suffolk Onshore Scheme, Appendix B Tree Constraints Plans Kent Onshore Scheme, Appendix E Tree Protection Plans Suffolk Onshore Scheme and Appendix F Tree Protection Plans Kent Onshore Scheme).

3. Results

3.1 Suffolk Site – Baseline Results

3.1.1 The BNG Parameters Line used for the Suffolk Site covers a total area of 212.39 ha. The following broad habitat types are present:

- Cropland;
- Grassland;
- Heathland and shrub;
- Lakes;
- Urban;
- Watercourse footprint;
- Woodland and forest; and
- Individual trees.

3.1.2 Linear terrestrial habitats present within the BNG Parameters Line include:

- Line of trees;
- Native hedgerow;
- Native hedgerow with trees;
- Species-rich native hedgerow; and
- Species-rich native hedgerow with trees.

3.1.3 Watercourse habitats present within the BNG Parameters Line include:

- Ditches; and
- Other rivers and streams.

3.1.4 The Suffolk BNG Baseline Habitat Plan for the Suffolk Site is presented in Appendix B.

Habitat Degradation

3.1.5 The Environment Act 2021 inserted into Schedule 7A of the Town and Country Planning Act 1990 measures which allow LPAs to take note of any habitat degradation or deliberate destruction undertaken on a site since 30 January 2020, and to take the earlier habitat state as the baseline for the purposes of biodiversity net gain.

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

Baseline Habitats – Strategic Significance (SS)

3.1.7 As outlined in Section 3.2, SS has been assigned to all baseline habitats present within the BNG Parameters Line:

- ‘High’ SS – assigned to areas of ‘Grassland – Bracken’, ‘Grassland – Lowland dry acid grassland’ and ‘Urban’ habitats because they are located within sites designated for nature conservation;
- ‘Medium’ SS – assigned to the broad habitat ‘Woodland and forest’, Heathland and shrub’, ‘Wetland’, ‘Hedgerows’, ‘Grassland – Other neutral grassland’ with veteran and ancient trees also assigned ‘Medium SS because they are either listed within relevant documents, provide suitable habitat for protected and notable species or provide ‘buffer’ habitats to adjacent areas of ‘High’ distinctiveness habitats; and,
- ‘Low’ SS – assigned to all other habitats that do not meet the criteria for ‘High’ or ‘Medium’ SS.

Baseline Habitats Units

Table 3.1 Baseline habitats – Suffolk Site

Broad Habitat	Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
Cropland	Cereal Crops	177.852	Low	Condition Assessment N/A	Low	355.704
Grassland	Bracken	0.009	Low	Condition Assessment N/A	High	0.004
	Bracken	0.434	Low	Condition Assessment N/A	Low	0.217
	Lowland Dry Acid Grassland	0.002	V. High	Good	High	0.06
	Lowland Dry Acid Grassland	3.78	V. High	Good	Medium	99.79
	Lowland Dry Acid Grassland	4.725	V. High	Moderate	Medium	83.16
	Modified Grassland	2.509	Low	Good	Low	15.05
	Modified Grassland	0.136	Low	Moderate	Low	0.54
	Modified Grassland	0.03	Low	Poor	Low	0.06
	Other Neutral Grassland	0.911	Medium	Good	Low	10.93
	Other Neutral Grassland	2.922	Medium	Moderate	Low	23.38
	Other Neutral Grassland	3.595	Medium	Poor	Low	14.38

Broad Habitat	Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
	Other Neutral Grassland	0.002	Medium	Poor	Medium	0.01
Heathland and Shrub	Mixed Scrub	0.153	Medium	Good	Medium	2.02
	Mixed Scrub	0.269	Medium	Poor	Medium	1.18
Lakes	Ponds (Non-priority habitat)	0.166	Medium	Moderate	Medium	1.46
Urban	Bare Ground	0.013	Low	Good	Low	0.08
	Bare Ground	0.001	Low	Moderate	High	0.00
	Bare Ground	0.242	Low	Moderate	Low	0.97
	Bare Ground	0.424	Low	Poor	Low	0.85
	Developed Land; Sealed Surface	0.025	V. Low	N/A - Other	High	0.00
	Developed Land; Sealed Surface	4.423	V. Low	N/A - Other	Low	0.00
Watercourse Footprint	Watercourse Footprint	0.382	V. Low	N/A - Other	Medium	0.00
Woodland and Forest	Other Coniferous woodland	1.163	Low	Good	Medium	
	Other Woodland; Broadleaved	0.684	Medium	Good	Medium	7.68
	Other Woodland; Broadleaved	0.428	Medium	Moderate	Medium	9.03
	Other Woodland; Broadleaved	7.31	Medium	Poor	Medium	3.77

Broad Habitat	Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
	Other Woodland; Mixed	0.01	Medium	Poor	Medium	32.16
Individual Trees (Ancient and Veteran Trees)	Rural Trees	0.153	Medium	Good	Medium	N/A*
	Rural Trees	0.037	Medium	Good	Medium	N/A*
	Rural Trees	0.612	Medium	Good	Medium	N/A*
	Rural Trees	0.11	Medium	Good	Medium	N/A*
	Rural Trees	0.05	Medium	Good	Medium	N/A*
	Rural Trees	0.049	Medium	Good	Medium	N/A*
Individual Trees	Rural Trees	1.682	Medium	Good	Low	20.18
	Rural Trees	0.513	Medium	Good	Low	6.16
	Rural Trees	0.44	Medium	Good	Low	5.28
	Rural Trees	0.167	Medium	Good	Low	2.00
	Rural Trees	0.037	Medium	Moderate	Low	0.30
	Rural Trees	0.13	Medium	Moderate	Low	1.04
	Rural Trees	0.008	Medium	Moderate	Low	0.06
	Total (Ha)	**212.378****			**Total Units**	**697.77**

* Ancient and Veteran Trees are 'Irreplaceable habitat' as such they are not attributed any habitat units within the Metric as any loss is considered unacceptable.
**'Individual trees – Rural Tree' areas are excluded from total area to prevent double counting of area; however, the unit contributions are included within the habitat unit total.

3.1.8 A total of 697.77 habitat units have been generated from the 212.378 ha of habitat within the BNG Parameters Line.

3.1.9 Most units within the baseline are attributed to 'Cropland – Cereal Crop' with 177.852 ha generating 355.70 units. Of the 247.80 units that are attributed to the broad habitat type 'Grassland' a total of 183.00 units are attributed to 'Grassland – Lowland dry acid grassland' a habitat of 'Very High' Distinctiveness.

3.1.10 A total of 137 'Individual Trees – Rural Trees' have been captured within the BNG Parameters Line. Of these 137 trees a total of 18 have been identified as ancient or veteran trees, a habitat which is identified to be an irreplaceable habitat, meaning that any losses of this habitat type are considered unacceptable. These 18 trees include:

- Two 'very large' ancient trees in 'Good' condition;
- One 'large' ancient tree in 'Good' condition;
- Eight 'large' veteran trees in 'Good' condition;
- Three 'medium' veteran trees in 'Good' condition, and
- One 'small' veteran tree in 'Good' condition.

3.1.11 Habitats identified as irreplaceable habitats are not attributed habitat units within the SBM, and do not contribute to the baseline habitat unit value of the BNG Parameters Line as any losses of these habitats is considered unacceptable. All ancient and veteran trees within the BNG Parameters Line are to be retained and protected throughout the works and the life cycle of the asset.

Table 3.2 Baseline hedgerows – Suffolk Site

Habitat Type	Length (km)	Distinctiveness	Condition	SS	Hedgerow Units
Line of Trees	0.761	Low	Good	Medium	5.02
	0.058		Moderate	Medium	0.26
Native Hedgerow	0.709	Low	Good	Medium	4.68
	0.333		Moderate	Medium	1.47
	0.226		Poor	Medium	0.50
Native Hedgerow with Trees	1.486	Medium	Good	Medium	19.62
	1.086		Moderate	Medium	9.56
	0.43		Poor	Medium	1.89
Species-rich Native Hedgerow	0.32	Medium	Good	Medium	4.22
	0.048		Moderate	Medium	0.42
Species-rich Native Hedgerow with Trees	0.589	High	Good	Medium	11.66
Total Length	**6.05**			**Total Units**	**59.29**

3.1.12 A total of 59.29 hedgerow units have been generated from the 6.046 km of hedgerow habitat captured within the BNG Parameters Line.

3.1.13 Most of the units are attributed to ‘Native Hedgerow with Trees’ with a total of 31.06 hedgerow units generated from a total of 3.002 km of ‘Native Hedgerow with Trees’ captured within the BNG Parameters Line.

Table 3.3 Baseline watercourses – Suffolk site

Watercourse Type	Length (Km)	Distinctiveness	Condition	SS	Watercourse Encroachment	Riparian Encroachment	Watercourse Units
Other rivers and streams	0.015	High	Good	Low	No Encroachment	Major/Major	0.20
	0.565		Moderate	Low	No Encroachment	Major/No Encroachment	5.90
	0.070		Fairly poor	Low	No Encroachment	Major/Major	0.47
Ditches	0.417	Medium	Moderate	Low	No Encroachment	Major/No Encroachment	2.90
	0.024		Poor	Low	No Encroachment	Major/Major	0.07
	0.364		Poor	Low	No Encroachment	Major/Major	1.16
Culverts	0.006	Low	Poor	Low	No Encroachment	N/A - Culvert	0.01
Total Length	**1.46**			**Total Units**			**10.65**

3.1.14 A total of 10.65 watercourse units are generated from a total length of 1.46 km of watercourse habitats. This includes 6.57 units from 0.65 km of 'other rivers and streams', 4.13 units from 0.805 km of 'ditches', and 0.01 units from 0.006 km of 'culverts'.

3.2 Kent Site – Baseline Results

3.2.1 The BNG Parameters Line used for the Kent Site covers a total area of 96.45 ha. The following broad habitat types are present:

- Cropland;
- Grassland;
- Heathland and shrub;

- Lakes;
- Sparsely vegetated land;
- Urban;
- Wetland;
- Woodland and forest; and
- Individual trees.

3.2.2 Linear terrestrial habitats present within the BNG Parameters Line include:

- Native hedgerow; and
- Native hedgerow with trees.

3.2.3 Watercourse habitats present within the BNG Parameters Line include:

- Ditches; and
- Other rivers and streams.

3.2.4 The Kent BNG Baseline Habitat Plan for the Kent Site is presented in Appendix B.

Habitat Degradation

3.2.5 Within Schedule 14 of the Environment Act, measures have been included allowing LPAs to take note of any habitat degradation or deliberate destruction undertaken on a site since 30*th* January 2020, and to take the earlier habitat state as the baseline for the purposes of biodiversity net gain.

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

Baseline Habitats – Strategic Significance (SS)

3.2.7 As outlined in Section 2.2, SS has been assigned to all baseline habitats present within the BNG Parameters Line:

- ‘High’ SS – assigned to areas of ‘Woodland and forest – Other woodland; broadleaved’ because they are located within sites designated for nature conservation;
- ‘Medium’ SS – assigned to the broad habitat ‘Woodland and forest’, Heathland and shrub’, ‘Wetland’, ‘Hedgerows’, because they are either listed within relevant documents, provide suitable habitat for protected and notable species or provide ‘buffer’ habitats to adjacent areas of ‘High’ distinctiveness habitats; and,
- ‘Low’ SS – assigned to all other habitats that do not meet the criteria for ‘High’ or ‘Medium’ SS.

Baseline Habitats Units

Table 3.4 Baseline habitats – Kent Site

Broad Habitat	Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
Cropland	Cereal Crops	70.528	Low	Condition Assessment N/A	Low	141.06
Grassland	Floodplain Wetland Mosaic and CFGM	4.635	High	Good	Medium	91.77
	Modified Grassland	2.931	Low	Good	Low	17.59
	Modified Grassland	0.282	Low	Moderate	Low	1.13
	Modified Grassland	6.931	Low	Poor	Low	13.86
	Other Neutral Grassland	0.355	Medium	Good	Low	4.26
	Other Neutral Grassland	0.041	Medium	Poor	Low	0.16
Heathland and Shrub	Blackthorn Scrub	0.547	Medium	Good	Medium	7.22
		0.02	Medium	Moderate	Medium	0.18
	Bramble Scrub	0.027	Medium	Condition Assessment N/A	Medium	0.12
	Mixed Scrub	0.114	Medium	Good	Medium	1.50
	Mixed Scrub	0.373	Medium	Moderate	Medium	3.28
	Mixed Scrub	0.102	Medium	Poor	Medium	0.45
Lakes	Ponds (Non-priority habitat)	0.514	Medium	Good	Medium	6.78
Sparsely Vegetated Land	Ruderal/Ephemeral	0.976	Medium	Good	Medium	5.86
Urban	Bare Ground	0.505	Low	Good	Low	2.02
	Developed Land; Sealed Surface	3.28	V. Low	N/A - Other	Low	0.00
Watercourse Footprint	Watercourse Footprint	2.682	V. Low	N/A - Other	Medium	0.00
Wetland	Reedbeds	0.083	High	Good	Medium	1.64
	Reedbeds	0.039	High	Moderate	Medium	0.51

Broad Habitat	Habitat Type	Area (Ha)	Distinctiveness	Condition	SS	Habitat Units
Woodland and Forest	Other Woodland; Broadleaved	0.723	Medium	Good	High	9.98
	Other Woodland; Broadleaved	0.797	Medium	Good	Medium	10.52
	Other Woodland; Broadleaved	0.015	Medium	Moderate	Medium	0.13
Individual Tree	Rural Tree	0.057	Medium	Good	Low	0.68
	Rural Tree	0.09	Medium	Good	Low	1.08
	Rural Tree	0.065	Medium	Good	Low	0.78
	Rural Tree	0.049	Medium	Good	Low	0.59
	Rural Tree	0.037	Medium	Good	Low	0.44
	Rural Tree	0.004	Medium	Moderate	Low	0.03
	Rural Tree	0.016	Medium	Moderate	Low	0.13
	Total (Ha)	**96.45***			**Total Units**	**323.77**

*'Individual trees – Rural Tree' areas are excluded from total area to prevent double counting of area; however, the unit contributions are included within the habitat unit total.

3.2.8 A total of 323.77 habitat units have been generated from the 96.45 ha of habitat within the BNG parameters line.

3.2.9 Most units within the baseline are attributed to 'Cropland – Cereal Crop' with 70.528 ha generating 141.06 units. Of the 128.77 units that are attributed to the broad habitat type 'Grassland' a total of 91.77 units are attributed to 'Grassland – Floodplain wetland mosaic and coastal floodplain and grazing marsh' a habitat of 'High' Distinctiveness.

3.2.10 A total of 42 'Individual Trees – Rural Trees' have been captured within the BNG Parameters Line. Of these 42 trees none have been identified as ancient or veteran trees.

Table 3.5 Baseline hedgerows – Kent Site

Habitat Type	Length (Km)	Distinctiveness	Condition	SS	Hedgerow Units
Native Hedgerow	1.527	Low	Good	Medium	10.08
	0.244		Moderate	Medium	1.07
Native Hedgerow with Trees	0.468	Medium	Good	Medium	6.18

Habitat Type	Length (Km)	Distinctiveness	Condition	SS	Hedgerow Units
Total Length	**2.239**			**Total Units**	**17.33**

3.2.11 A total of 17.33 hedgerow units have been generated from the 2.239 km of hedgerow habitat captured within the BNG Parameters Line.

3.2.12 Most of the units are attributed to 'Native Hedgerow' with a total of 10.08 hedgerow units generated from a total of 1.771 km of 'Native Hedgerow captured within the BNG Parameters Line.

Table 3.6 Baseline watercourses – Kent site

Watercourse Type	Length (Km)	Distinctiveness	Condition	SS	Watercourse Encroachment	Riparian Encroachment	Watercourse Units
Other rivers and streams	1.118	High	Fairly Poor	Low	No Encroachment	Major/Major	7.55
	0.045		Fairly Poor	Low	No Encroachment	Major/Major	0.30
	0.335		Moderate	Low	No Encroachment	Major/Minor	3.38
Ditches	0.662	Medium	Poor	Low	No Encroachment	Major/Major	1.99
	0.083		Poor	Low	No Encroachment	Major/Major	0.25
	0.179		Poor	Low	No Encroachment	Major/No Encroachment	0.62
	0.001		Moderate	Low	No Encroachment	Major/Major	0.01
	0.006		Poor	Low	No Encroachment	Major/Major	0.02
	0.041		Poor	Low	No Encroachment	Major/Major	0.12

Watercourse Type	Length (Km)	Distinctiveness	Condition	SS	Watercourse Encroachment	Riparian Encroachment	Watercourse Units
	0.048		Poor	Low	No Encroachment	Major/Major	0.14
	0.028		Poor	Low	No Encroachment	Major/Major	0.08
	0.180		Moderate	Low	No Encroachment	Major/Major	1.08
	0.727		Moderate	High	No Encroachment	Major/No Encroachment	5.82
	0.057		Moderate	Low	No Encroachment	Major/No Encroachment	0.40
	0.002		Moderate	Low	No Encroachment	No Encroachment/ No Encroachment	0.02
	0.131		Moderate	Low	No Encroachment	Major/Minor	0.88
	3.383		Moderate	Low	No Encroachment	Major/Major	20.30
Total Length	**7.03**					**Total Units**	**42.95**

3.2.13 A total of 42.95 watercourse units have been generated from 7.03 km of watercourse habitats. ‘Other rivers and streams’. This includes 11.23 units from 1.498 km of ‘other rivers and streams’, and 31.72 units from 5.528 km of ‘ditches’.

3.3 Suffolk Site – Post Development Results

3.3.1 As outlined in Section 2.4, SS has been assigned to all post-development habitats present within the BNG Parameters Line:

- 'High' SS – assigned to areas of 'Woodland and forest – Other woodland; broadleaved' because they are located within sites designated for nature conservation;
- 'Medium' SS – assigned to the broad habitat 'Woodland and forest', Heathland and shrub', 'Wetland', 'Hedgerows', because they are either listed within relevant documents, provide suitable habitat for protected and notable species or provide 'buffer' habitats to adjacent areas of 'High' distinctiveness habitats; and,
- 'Low' SS – assigned to all other habitats that do not meet the criteria for 'High' or 'Medium' SS.

Retained and Lost Habitats

3.3.2 Table 3.7 below presents the retained and lost habitat areas and associated habitat units.

Table 3.7 Retained and lost habitats – Suffolk Site

Broad Habitat	Habitat type	Irreplaceable Habitat	Area (ha)		Dist.	Condition	SS	Habitat Units	
			Retained	Lost				Retained	Lost
Cropland	Cereal Crops	No	73.374	104.478	Low	Condition Assessment N/A	Low	146.75	208.96
Grassland	Bracken	No	0	0.004	Low	Condition Assessment N/A	High	0.00	0.01
		No	0.136	0.081		Condition Assessment N/A	Low	0.27	0.16

Broad Habitat	Habitat type	Irreplaceable Habitat	Area (ha)		Dist.	Condition	SS	Habitat Units	
			Retained	Lost				Retained	Lost
	Lowland dry acid grassland	No	0	0.002	V.High	Good	High	0.00	0.06
		No	0.361	3.419		Good	Medium	9.53	90.26
		No	0.197	4.528		Moderate	Medium	3.47	79.69
	Modified grassland	No	1.536	0.973	Low	Good	Low	9.22	5.84
		No	0.001	0.14		Moderate	Low	0.00	0.54
		No	0.002	0.03		Poor	Low	0.00	0.06
	Other neutral grassland	No	0.543	0.368	Medium	Good	Low	6.52	4.42
		No	1.139	1.718		Moderate	Low	9.11	13.74
		No	0.798	2.77		Poor	Low	3.19	11.06
		No	0.001	0.001		Poor	Medium	0.00	0.00
Heathland and Shrub	Mixed Scrub	No	0.032	0.121	Medium	Good	Medium	0.42	1.60
		No	0.018	0.251		Poor	Medium	0.08	1.10
Lakes	Ponds (non-priority habitat)	No	0.166	0	Medium	Moderate	Medium	1.46	0.00
Urban	Bare ground	No		0.013	Low	Good	Low	0.00	0.08
		No		0.001		Moderate	High	0.00	0.01

Broad Habitat	Habitat type	Irreplaceable Habitat	Area (ha)		Dist.	Condition	SS	Habitat Units	
			Retained	Lost				Retained	Lost
		No	0.155	0.087		Moderate	Low	0.62	0.35
		No	0.295	0.129		Poor	Low	0.59	0.26
	Developed land; sealed surface	No	0.016	0.009	V.Low	N/A - Other	High	0.00	0.00
		No	3.931	0.492		N/A - Other	Low	0.00	0.00
Woodland and forest	Other coniferous woodland	No	0.072	1.091	Low	Good	Medium	0.48	7.20
	Other woodland; broadleaved	No	0.333	0.351	Medium	Good	Medium	4.40	4.63
		No		0.017		Moderate	Medium	0.00	0.15
		No	1.116	5.050		Poor	Medium	4.91	22.23
	Other woodland; mixed	No		0.01	Medium	Poor	Medium	0.00	0.04
Individual Trees	Rural Tree	No	2.744	0.058	Medium	Good	Low	32.93	0.70
		Yes	1.011	0		Good		0.00	0.00
		No	0.159	0.016		Moderate	Low	1.27	0.13
Total			**88.52**	**126.13***				**235.22**	**453.27**

*Individual trees – Rural Tree' areas are excluded from total area to prevent double counting of area; however, the unit contributions are included within the habitat unit total.

3.3.3 Most of the losses in habitat units are attributed to the loss of 104.48 ha of ‘Cropland – Cereal crops’, this temporary loss of habitat results in the loss of 208.96 units.

3.3.4 The temporary loss of 3.419 ha and 4.528 ha of ‘Grassland – Lowland dry acid grassland’ in ‘Good’ and ‘Moderate’ condition, respectively will result in the loss of 90.26 and 79.69 units, respectively. This loss of units is a result of the time it will take for re-instated habitat to return to its baseline condition.

Table 3.8 Retained and lost hedgerows – Suffolk Site

Hedgerow type	Area (ha)		Dist.	Condition	SS	Habitat Units	
	Retained	Lost				Retained	Lost
Line of trees	0.655	0.11	Low	Good	Medium	4.32	0.70
		0.06		Moderate	Medium	0.00	0.26
Native hedgerow	0.592	0.12	Low	Good	Medium	3.91	0.77
	0.006	0.27		Moderate	Medium	0.03	1.44
	0.137	0.09		Poor	Medium	0.30	0.20
Native hedgerow with trees	0.94	0.45	Medium	Good	Medium	12.41	5.94
	0.569	0.52		Moderate	Medium	5.01	4.55
	0.089	0.34		Poor	Medium	0.39	1.50
Species-rich native hedgerow	0.276	0.04	Medium	Good	Medium	3.64	0.58
	0.002	0.05		Moderate	Medium	0.02	0.40
Species-rich native hedgerow with trees	0.537	0.05	High	Good	Medium	10.63	1.03
Total	3.86	2.09			**Total**	40.90	17.13

3.3.5 The temporary loss of 0.45 km and 40.52 of 'Native hedgerow with trees' in 'Good' and 'Moderate' condition, respectively will result in the loss of 5.94 and 4.55 units, respectively.

Table 3.9 Retained and lost watercourse units – Suffolk Site

Watercourse type	Length (km)		Dist.	Condition	SS	Habitat Units	
	Retained	Lost				Retained	Lost
Other rivers and streams	0.010	0.01	High	Good	Low	0.14	0.07
	0.00*	0.01	High	Moderate	Low	0.00	0.11
	0.065	0.01	High	Fairly Poor	Low	0.44	0.03

Watercourse type	Length (km)		Dist.	Condition	SS	Habitat Units	
	Retained	Lost				Retained	Lost
Ditches	0.395	0.02	Medium	Moderate	Low	2.75	0.15
	0.024	0.00	Medium	Poor	Low	0.07	0.00
	0.335	0.03	Medium	Poor	Low	1.01	0.09
Culverts	0.006	0.00	Low	Poor	Low	0.01	0.00
Total	**1.39**	**0.07**			**Total**	**10.19**	**0.46**

*0.554 km of the river Fromus is to be enhanced.

3.3.6 A total of 0.21 watercourse units attributed to 'Other rivers and streams' are to be lost along with a further 0.24 watercourse units attributed to 'Ditches'. Losses are due to permanent and temporary culverts and outfalls, as well as the proposed River Fromus bridge.

Enhanced Habitats

Table 3.10 Enhanced habitats – Suffolk Site

Baseline		Post-Development		Area (ha)	Distinctiveness Change	Condition Change	SS Change		Unit Change	
Broad Habitat	**Habitat Type**	**Broad Habitat**	**Habitat Type**							
Grassland	Other neutral grassland	Grassland	Other neutral grassland	0.031	Medium	(No Change)	Moderate to Good	Low	(No Change)	0.32
Grassland	Other neutral grassland	Grassland	Other neutral grassland	0.034	Medium	(No Change)	Moderate to Good	Low	(No Change)	0.35
Grassland	Other neutral grassland	Grassland	Other neutral grassland	0.031	Medium	(No Change)	Poor to Moderate	Low	(No Change)	0.20
Woodland and forest	Other woodland; broadleaved	Woodland and forest	Other woodland; broadleaved	0.411	Medium	(No Change)	Moderate to Good	Medium	(No Change)	4.71
Woodland and forest	Other woodland;	Woodland and forest	Other woodland;	1.142	Medium	(No Change)	Poor to Moderate	Medium	(No Change)	8.08

Baseline	Post-Development	Area (ha)	Distinctiveness Change	Condition Change	SS Change	Unit Change
	broadleaved	broadleaved				
Total			**1.65**			**13.67**

3.3.7 Habitat enhancements on-site relate to areas of existing habitat located around the proposed Saxmundham Converter Station site and River Fromus bridge crossing. In total these proposed habitat enhancements will result in the delivery of 13.67 habitat units, with 0.88 units generated by grassland enhancement and 12.79 units generated by woodland enhancement.

Table 3.11 Enhanced hedgerows – Suffolk Site

Baseline	Post-Development	Length (km)	Distinctiveness Change		Condition Change	SS Change		Unit Change
Hedgerow Type	**Hedgerow Type**							
Native hedgerow with trees	Species-rich native hedgerow with trees	0.096	Medium	High	No Change	Low	Low	1.73
Total		**0.096**						**1.73**

3.3.8 Hedgerow enhancements on-site relate to areas of existing habitat located around the proposed converter station site. Hedgerow enhancement will result in 1.73 hedgerow units being generated.

Table 3.12 Enhanced watercourses – Suffolk Site

Baseline	Post-Development	Length (Km)	Distinctiveness Change	Condition Change	SS Change	Watercourse Encroachment	Riparian Encroachment	Unit Change
Watercourse Type	**Watercourse Type**							
Other Rivers and streams	Other Rivers and streams	0.554	No Change	Moderate to Fairly Good	No Change	No Change	Major / No encroachment to No encroachment / no encroachment.	+1.90
Total		**0.554**						**1.90**

3.3.9 The Proposed Project will enhance a 0.554 km stretch of the riparian corridor along the river Fromus. This will include management of invasive non-native species, riparian planting and reprofiling sections of the banks to create an approximately 50 cm wide berm above the typical summer water level. This berm will be planted with riparian vegetation. This will enhance the value of the River Fromus since this stretch of the river has little riparian emergent vegetation. This enhancement from 'Moderate' condition to 'Fairly good' condition with a removal of riparian encroachment will deliver a total of 1.90 watercourse units.

Created Habitats

Table 3.13 Created habitats – Suffolk Site

Broad Habitat	Habitat Type	Area (Ha)	Dist.	Condition	SS	Delay in Creation	Habitat Units
Cropland	Cereal Crops	45.084	Low	Condition Assessment N/A	Low	4	75.46
	Cereal Crops	36.679	Low	Condition Assessment N/A	Low	6	57.17
Grassland	Bracken	0.004	Low	Condition Assessment N/A	High	4	0.01
	Bracken	0.082	Low	Condition Assessment N/A	Low	4	0.14
	Lowland Dry Acid Grassland	0.002	V. High	Good	High	4	0.01
	Lowland Dry Acid Grassland	1.919	V. High	Good	Medium	4	5.35
	Lowland Dry Acid Grassland	1.5	V. High	Good	Medium	6	4.18
	Lowland Dry Acid Grassland	4.528	V. High	Moderate	Medium	4	11.18
	Modified Grassland	0.841	Low	Good	Low	0	3.41
	Modified Grassland	0.134	Low	Moderate	Low	0	0.40
	Modified Grassland	0.014	Low	Poor	Low	0	0.02
	Other Neutral Grassland	0.264	Medium	Good	Low	4	1.92

Broad Habitat	Habitat Type	Area (Ha)	Dist.	Condition	SS	Delay in Creation	Habitat Units
	Other Neutral Grassland	1.39	Medium	Moderate	Low	4	8.07
	Other Neutral Grassland	0.041	Medium	Moderate	Low	6	0.22
	Other Neutral Grassland	1.911	Medium	Moderate	Low	0	12.79
	Other Neutral Grassland	0.007	Medium	Poor	Low	4	0.02
	Other Neutral Grassland	0.001	Medium	Poor	Medium	4	0.00
Heathland and Shrub	Mixed Scrub	0.029	Medium	Good	Medium	4	0.21
	Mixed Scrub	0.251	Medium	Poor	Medium	4	0.84
Urban	Bare Ground	0.013	Low	Good	Low	4	0.06
	Bare Ground	0.001	Low	Moderate	High	4	0.00
	Bare Ground	0.086	Low	Moderate	Low	4	0.27
	Bare Ground	0.128	Low	Poor	Low	4	0.21
	Developed Land; Sealed Surface	0.403	V. Low	N/A - Other	High	4	0.00
	Developed Land; Sealed Surface	10.335	V. Low	N/A - Other	Low	0	0.00
	Sustainable drainage system	1.169	Low	Good	Medium	0	4.33
Wetland	Reedbeds	0.019	High	Moderate	Medium	4	0.11
	Reedbeds	1.614	High	Moderate	Medium	4	11.12

Broad Habitat	Habitat Type	Area (Ha)	Dist.	Condition	SS	Delay in Creation	Habitat Units
Woodland and Forest	Other Coniferous woodland	1.09	Low	Good	Medium	4	2.30
	Other Woodland; Broadleaved	0.27	Medium	Good	Medium	4	1.14
	Other Woodland; Broadleaved	1.058	Medium	Poor	Medium	4	3.38
	Other Woodland; Broadleaved	15.258	Medium	Poor	Medium	0	56.18
	Other Woodland; Mixed	0.01	Medium	Poor	Medium	4	0.03
Individual Trees	Rural Trees	0.269	Medium	Poor	Low	4	0.65
	Total (Ha)	**126.14**			**Total Units**		**261.19**

3.3.10 The majority of the re-instated habitat falls within the cable construction swathe, as such a four year delay in habitat creation has been inputted into the SBM to capture the maximum delay in habitat creation. Where habitats fall within proposed construction compounds, these habitats have been inputted with a six year delay as this represents the maximum delay in habitat creation within these areas.

3.3.11 Habitats that have no delay in habitat creation relate to areas of landscape planting that can be created and protected during the construction phase of the Proposed Project.

3.3.12 The majority of the units delivered through habitat creation relate to the re-instatement of ‘Cropland – Cereal crops’ which delivers a total of 132.33 habitat units.

3.3.13 The re-instatement of ‘Grassland – lowland dry acid grassland’ will deliver a total of 20.72 habitat units.

3.3.14 Areas of proposed landscaping relating to the creation of ‘Grassland – other neutral grassland’ and ‘Woodland and forest – other woodland; broadleaved’ will deliver 12.77 units and 58.06 units, respectively.

3.3.15 The units delivered through the planting of 66 small ‘individual trees’ of poor condition, which converts to 0.269 ha will deliver a total of 0.65 units.

3.3.16 A total of 87.85 units are delivered by a total of 31.41 ha of landscape planting which is to be secured for at least 30 years.

Table 3.14 Created hedgerows – Suffolk Site

Habitat Type	Length (Km)	Distinctiveness	Condition	SS	Hedgerow Units
Line of trees	0.11	Low	Good	Medium	0.22
	0.06		Moderate	Medium	0.11
Native Hedgerow	0.12	Low	Good	Medium	0.44
	0.20		Moderate	Medium	0.64
	0.09		Poor	Medium	0.16
Native Hedgerow with Trees	0.36	Medium	Good	Medium	2.04
	0.45		Moderate	Medium	2.38
	0.23		Poor	Medium	0.86
Species-rich native hedgerow	0.03	Medium	Good	Medium	0.20
	0.50		Moderate	Medium	3.20
Species-rich native hedgerow with trees	0.05	High	Good	Medium	0.44
	1.77		Moderate	Medium	14.26
Total Length	**3.96**			**Total Units**	**24.95**

3.3.17 A total of 14.70 hedgerow units have been generated from creation of 1.82 km of Species-rich native hedgerow with trees.

3.3.18 In total 24.95 hedgerow units have been generated from the creation of a total of 3.96 km of hedgerows.

Table 3.15 Created watercourses – Suffolk Site

Watercourse Type	Length (Km)	Distinctiveness	Condition	SS	Watercourse Encroachment	Riparian Encroachment	Watercourse Units
Other rivers and streams	0.005	High	Good Fairly Poor	Low	No Encroachment	Major/Major	0.01
	0.005		Moderate	Low	Major	Major/No Encroachment	0.01

Watercourse Type	Length (Km)	Distinctiveness	Condition	SS	Watercourse Encroachment	Riparian Encroachment	Watercourse Units
	0.006		Moderate	Low	No Encroachment	Major/Minor	0.02
	0.005		Good	Low	Major	Major/Major	0.01
Ditches	0.005	Medium	Moderate	Low	Major	Major/No Encroachment	0.01
	0.005		Moderate	Low	No Encroachment	Major/No Encroachment	0.02
	0.012		Poor	Low	No Encroachment	Major/Major	0.02
	0.012		Poor	Low	No Encroachment	Major/Major	0.02
	0.005		Poor	Low	No Encroachment	Major/Major	0.01
	0.125		Poor	Low	No Encroachment	Major/Major	0.24
Culverts	0.012	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.01
Total Length	**0.20**			**Total Units**			**0.37**

3.3.19 The majority of watercourse habitats being created are the reinstatement of habitats following temporary construction works. Other created habitats are related to the installation of permanent outfalls, one permanent culvert, the River Fromus bridge, and the creation of a new ditch.

3.4 Kent Site – Post Development Results

3.4.1 As outlined in Section 2.4, SS has been assigned to all post-development habitats present within the BNG Parameters Line:

- 'High' SS – assigned to areas of 'Woodland and forest – Other woodland; broadleaved' because they are located within sites designated for nature conservation;
- 'Medium' SS – assigned to the broad habitat 'Woodland and forest', Heathland and shrub', 'Wetland', 'Hedgerows', because they are either listed within relevant documents, provide suitable habitat for protected and notable species or provide 'buffer' habitats to adjacent areas of 'High' distinctiveness habitats; and,
- 'Low' SS – assigned to all other habitats that do not meet the criteria for 'High' or 'Medium' SS.

Retained and Lost Habitats

Table 3.16 Retained and lost habitats – Kent Site

Broad Habitat	Habitat Type	Irreplaceable Habitats	Area (Ha)		Distinctiveness	Condition	SS	Habitat Units	
			Retained	Lost				Retained	Lost
Cropland	Cereal Crops	No	21.206	49.322	Low	Condition Assessment N/A	Low	42.41	98.64
Grassland	Floodplain Wetland Mosaic and CFGM	No	4.15	0.485	High	Good	Medium	82.17	9.60
	Modified Grassland	No	2.367	0.564	Low	Good	Low	14.20	3.38
	Modified Grassland	No	0.101	0.181	Low	Moderate	Low	0.40	0.72
	Modified Grassland	No	4.97	1.961	Low	Poor	Low	9.94	3.92

Broad Habitat	Habitat Type	Irreplaceable Habitats	Area (Ha)		Distinctiveness	Condition	SS	Habitat Units	
			Retained	Lost				Retained	Lost
	Other Neutral Grassland	No	0.28	0.075	Medium	Good	Low	3.36	0.90
	Other Neutral Grassland	No	0.031	0.01	Medium	Poor	Low	0.12	0.04
Heathland and Shrub	Blackthorn Scrub	No	0.015	0.532	Medium	Good	Medium	0.20	7.02
		No		0.02	Medium	Moderate	Medium	0.00	0.18
	Bramble Scrub	No	0.016	0.011	Medium	Condition Assessment N/A	Medium	0.07	0.05
	Mixed Scrub	No	0.087	0.027	Medium	Good	Medium	1.15	0.36
	Mixed Scrub	No	0.132	0.241	Medium	Moderate	Medium	1.16	2.12
	Mixed Scrub	No	0.03	0.072	Medium	Poor	Medium	0.13	0.32
Lakes	Ponds (Non-priority habitat)	No	0.514	0	Medium	Good	Medium	6.78	0.00
Sparsely Vegetated Land	Ruderal/Ephemeral	No	0.551	0.425	Medium	Good	Medium	3.31	2.55
Urban	Bare Ground	No	0.173	0.332	Low	Good	Low	0.69	1.33
	Developed Land; Sealed Surface	No	2.985	0.295	V. Low	N/A - Other	Low	0.00	0.00
Watercourse Footprint	Watercourse Footprint	No		2.628	V. Low	N/A - Other	Medium	0.00	0.00

Broad Habitat	Habitat Type	Irreplaceable Habitats	Area (Ha)		Distinctiveness	Condition	SS	Habitat Units	
			Retained	Lost				Retained	Lost
Wetland	Reedbeds	No	0.054	0.029	High	Good	Medium	1.07	0.57
	Reedbeds	No	0.039	0	High	Moderate	Medium	0.51	0.00
Woodland and Forest	Other Woodland; Broadleaved	No	0.723	0	Medium	Good	High	9.98	0.00
	Other Woodland; Broadleaved	No	0.747	0.05	Medium	Good	Medium	9.86	0.66
	Other Woodland; Broadleaved	No	0.006	0.01	Medium	Moderate	Medium	0.05	0.08
Individual Tree	Rural Tree	No	0.057	0.00	Medium	Good	Low	0.68	0.00
	Rural Tree	No	0.077	0.01	Medium	Good	Low	0.92	0.16
	Rural Tree	No	0.065	0.00	Medium	Good	Low	0.78	0.00
	Rural Tree	No	0.049	0.00	Medium	Good	Low	0.59	0.00
	Rural Tree	No	0.037	0.00	Medium	Good	Low	0.44	0.00
	Rural Tree	No	0.004	0.00	Medium	Moderate	Low	0.03	0.00
	Rural Tree	No	0.016	0.00	Medium	Moderate	Low	0.13	0.00
	Total (Ha)		42.01	54.75			**Total Units**	191.08	132.68

3.4.2 Most of the losses in habitat units are attributed to the loss of 49.32 ha of 'Cropland – Cereal crops', this temporary loss of habitat results in the loss of 98.64 units.

3.4.3 The loss of 0.49 ha of 'Grassland – Floodplain wetland mosaic and CFGM; in 'Good' condition, will result in the loss of 9.60 units. This loss is attributed to the bases of overhead line (OHL) pylons.

3.4.4 The loss of 0.16 units attributed to 'Individual trees' related to the loss of three small trees of 'Good' condition.

Table 3.17 Retained and lost hedgerows – Kent Site

Hedgerow type	Area (ha)		Dist.	Condition	SS	Habitat Units	
	Retained	Lost				Retained	Lost
Native hedgerow	0.77	0.757	Low	Good	Medium	5.08	5.00
	0.158	0.086		Moderate	Medium	0.70	0.38
Native hedgerow with trees	0.445	0.01	Medium	Good	Medium	5.87	0.30
Total	1.37	0.87			**Total**	11.65	5.68

3.4.5 A total of 0.87 km of hedgerow is to be temporarily impacted to facilitate the works, of this 0.87 km a total of 0.757 km is attributed to the loss of 'Native hedgerow' this will result in a total of 5.0 hedgerow units being lost.

Table 3.18 Retained and lost watercourses – Kent Site

Watercourse type	Length (km)		Dist.	Condition	SS	Habitat Units	
	Retained	Lost				Retained	Lost
Other rivers and streams	0.045	0.00	High	Fairly Poor	Low	0.30	0.00
	0.335	0.00	High	Moderate	Low	3.38	0.00
	0.645	0.02	Medium	Poor	Low	1.94	0.05
Ditches	0.083	0.00	Medium	Poor	Low	0.25	0.00
	0.179	0.00	Medium	Poor	Low	0.62	0.00
	0.001	0.00	Medium	Moderate	Low	0.01	0.00
	0.006	0.00	Medium	Poor	Low	0.02	0.00

Watercourse type	Length (km)		Dist.	Condition	SS	Habitat Units	
	Retained	Lost				Retained	Lost
	0.029	0.01	Medium	Poor	Low	0.09	0.04
	0.038	0.01	Medium	Poor	Low	0.11	0.03
	0.013	0.02	Medium	Poor	Low	0.04	0.05
	0.154	0.03	Medium	Moderate	Low	0.92	0.16
	0.722	0.01	Medium	Moderate	High	5.78	0.04
	0.040	0.02	Medium	Moderate	Low	0.28	0.12
	0.002	0.00	Medium	Moderate	Low	0.02	0.00
	0.131	0.00	Medium	Moderate	Low	0.88	0.00
	2.941	0.44	Medium	Moderate	Low	17.65	2.65
	0.045	0.00	High	Fairly Poor	Low	0.30	0.00
Total	6.399	0.63			**Total**	39.26	3.69

3.4.6 A total of 3.69 watercourse units are expected to be lost and 39.26 watercourse units retained.

Created Habitats

Table 3.19 Created habitats – Kent Site

Broad Habitat	Habitat Type	Area (Ha)	Distinctiveness	Condition	Delay in Creation	SS	Habitat Units
Cropland	Cereal Crops	29.887	Low	Condition Assessment N/A	3	Low	51.83
Grassland	Floodplain Wetland Mosaic and CFGM	0.461	High	Good	3	Medium	1.33
	Modified Grassland	0.54	Low	Good	3	Low	2.27
	Modified Grassland	0.125	Low	Moderate	3	Low	0.39
	Modified Grassland	0.002	Low	Poor		Low	0.00
	Modified Grassland	1.44	Low	Poor	3	Low	2.50
	Other Neutral Grassland	0.871	Medium	Good		Low	7.32
	Other Neutral Grassland	0.075	Medium	Good	3	Low	0.57
	Other Neutral Grassland	3.333	Medium	Moderate		Low	22.31
	Other Neutral Grassland	0.01	Medium	Moderate	3	Low	0.06
	Other Neutral Grassland	0.227	Medium	Poor		Low	0.85
Heathland and Shrub	Blackthorn Scrub	0.005	Medium	Moderate	3	Medium	0.03
	Bramble Scrub	0.011	Medium	Condition Assessment N/A	3	Medium	0.04
	Mixed Scrub	0.027	Medium	Good	3	Medium	0.22

Broad Habitat	Habitat Type	Area (Ha)	Distinctiveness	Condition	Delay in Creation	SS	Habitat Units
	Mixed Scrub	0.241	Medium	Moderate	3	Medium	1.59
	Mixed Scrub	0.072	Medium	Poor	3	Medium	0.27
Lakes	Ponds (Non-priority habitat)	0.004	Medium	Good	3	Medium	0.04
Sparsely Vegetated Land	Ruderal/Ephemeral	0.421	Medium	Good	3	Medium	1.90
Urban	Bare Ground	0.321	Low	Moderate	3	Low	1.04
	Bioswale	0.067	Low	Moderate		Low	0.17
	Developed Land; Sealed Surface	10.473	V. Low	N/A - Other		Low	0.00
	Sustainable drainage system	2.102	Low	Good		Low	7.78
Watercourse Footprint	Watercourse Footprint	2.682	V. Low	N/A - Other		Medium	0.00
Wetland	Reedbeds	0.029	High	Good	3	Medium	0.23
	Reedbeds	0.001	High	Moderate	3	Medium	0.01
	Reedbeds	1.207	High	Poor			4.36
	Reedbeds	0.002	High	Poor			0.01
Woodland and Forest	Other Woodland; Broadleaved	0.05	Medium	Good	3	High	0.21
	Other Woodland; Broadleaved	0.009	Medium	Moderate	3	Medium	0.04
	Other Woodland; Broadleaved	2.725	Medium	Poor		Medium	10.03
	Total (Ha)	**54.73**				**Total Units**	**117.41**

3.4.7 The majority of the proposed habitat created input related to the re-instatement of habitats which are to be temporarily impacted by the Proposed Project. The majority of the re-instated habitat fall within the cable construction swathe, as such a three year

delay in habitat creation has been input into the SBM to capture the maximum delay in habitat creation. Habitats that have not been input with any delay relate to areas of landscape planting that may be created in advance of the works or areas where the construction impact is short in duration.

3.4.8 The majority of the units delivered through habitat creation relate to the re-instatement of 'Cropland – Cereal crops' which delivers a total of 51.83 habitat units.

3.4.9 The re-instatement and creation of 'Grassland – Other neutral grassland' will deliver a total of 31.10 habitat units.

3.4.10 The re-instatement and creation of 'Woodland and forest – Other woodland; broadleaved' will deliver a total of 10.29 habitat units.

3.4.11 A total of 52.83 units are delivered by a total of 20.71 ha of landscape planting which is to be secured for at least 30 years.

Table 3.20 Created hedgerows – Kent Site

Habitat Type	Length (Km)	Distinctiveness	Condition	SS	Hedgerow Units
Native Hedgerow	0.098	Low	Good	Medium	0.38
	0.076		Moderate	Medium	0.24
Native Hedgerow with Trees	0.023	Medium	Good	Medium	0.13
Total Length	**0.20**			**Total Units**	**0.76**

3.4.12 A total of 0.63 hedgerow units have been generated from creation of 0.174 km of native hedgerow.

3.4.13 In total 0.76 hedgerow units have been generated from the creation of a total of 0.20 km of hedgerows.

Table 3.21 Created watercourses – Kent Site

Watercourse Type	Length (Km)	Distinctiveness	Condition	SS	Watercourse Encroachment	Riparian Encroachment	Watercourse Units
Other rivers and streams	0.02	High	Fairly Poor	Low	Major	Major/Major	0.02
	0.06		Fairly Poor	Low	No Encroachment	Major/Major	0.10

Watercourse Type	Length (Km)	Distinctiveness	Condition	SS	Watercourse Encroachment	Riparian Encroachment	Watercourse Units
Ditches	0.01	Medium	Moderate	High	Major	Major/No Encroachment	0.01
	0.01		Moderate	Low	Major	Major/Major	0.02
	0.15		Moderate	Low	No Encroachment	Major/Major	0.44
	0.02		Moderate	Low	No Encroachment	Major/No Encroachment	0.06
	0.01		Poor	Low	Major	Major/Major	0.00
	0.04		Poor	Low	No Encroachment	Major/Major	0.06
Culverts	0.35	Low	Poor	Low	N/A - Culvert	N/A - Culvert	0.30
Total Length	**0.64**			**Total Units**			**1.02**

3.4.14 The majority of watercourse habitats being created are the reinstatement of habitats following temporary construction works. Other created habitats are related to the installation of permanent outfalls and permanent culverts.

3.5 Application of the Mitigation Hierarchy

Avoid

3.5.1 Where possible, impacts to habitats of very high and high distinctiveness have been avoided. This assessment presents the worst-case scenario and it is considered that during detailed design, once construction timelines and methodologies are refined impacts can be further avoided.

3.5.2 Impacts to important hedgerows and ancient and veteran trees have been avoided through the careful design of the Proposed Project.

Minimise

3.5.3 Where possible, impacts to habitats have been minimised through measures such as:

- Minimising the width of the cable corridor at ditch and hedgerow crossings to 20 m where possible;
- Retain mature vegetation removed from hedgerows and ditches would be retained as close to the area of removal as possible, retaining intact root balls, where feasible and desirable, such that it can be re-used; and
- Culverts in ditches would be box culverts that would either preserve the natural bed of the ditch, or have the inverts sunk below the bed level of the watercourse with natural/existing bed material then placed across the inside of the culvert to lift the level up to meet that of the existing.

3.5.4 This assessment presents the worst case scenario in relation to the duration of impacts. It is considered that during detailed design, once construction timelines and methodologies are refined impacts can be further minimised. Minimising impacts is to only be considered when all options to avoid the impacts have been exhausted.

Compensate

3.5.5 Due to the nature of the Proposed Project, as demonstrated within this assessment, it has not been possible to fully compensate for the losses of biodiversity units on-site, this is largely due to the loss of units resulting from re-instating habitats across the cable construction corridor and other associated temporary works. Where there is confidence in the longevity of the landscape planting, (i.e. planting will not be impacted via potential incoming new connections to the electricity transmission system), these have been included within this BNG assessment. Section 5 outlines the current BNG position of the Proposed Project and its aspirations to deliver a 10% net gain for biodiversity via third parties. The 10% net gain for biodiversity is not a mandatory requirement for NSIPs and is a voluntary commitment by National Grid.

3.6 Summary of Results

3.6.1 A summary of the results is shown in Table 3.22 and Table 3.23.

Table 3.22 Summary of results - Suffolk Site

Habitat Type	Baseline	Post-Development	Total Net Unit Change	Total Net % Change
Area Units	697.77	510.08	-187.69	-26.90%
Hedgerow Units	59.29	67.57	+8.28	+13.96%
Watercourse Units	10.65	12.46	+1.81	+17.04%

3.6.2 As shown in Table 3.22, based on the current design the Proposed Project is predicted to result in a net loss of -187.69 habitat units (-26.90%), a net gain of +8.28 hedgerow units (+13.96) and a net gain of +1.81 watercourse units (+17.04%).

Table 3.23 Summary of results - Kent Site

Habitat Type	Baseline	Post-Development	Total Net Unit Change	Total Net % Change
Area Units	323.77	308.56	-15.21	-4.70%
Hedgerow Units	17.33	12.39	-4.94	-28.51%
Watercourse Units	42.95	40.29	-2.66	-6.20%

3.6.3 As shown in Table 3.23, based on the current design the Proposed Project is predicted to result in a net loss of -15.21 habitat units (-4.70%), a net loss of -4.94 hedgerow units (-28.51%) and a net loss of -2.66 watercourse units (-6.20%).

4. Conclusion

4.1.1 The Proposed Project is predicted to result in a net loss for area habitat units in both Suffolk and Kent, a net gain in hedgerow units in Suffolk, a net loss in hedgerow units in Kent and net gain in watercourse units in Suffolk and a net loss in watercourse units in Kent. Tables 4.1 and 4.2 detail the additional units required to achieve a 10% gain for both Suffolk and Kent.

Table 4.1 Additional units required to achieve 10% BNG - Suffolk Site

Habitat Type	Baseline	Post-Development	Total Net Unit Change	Total Net % Change	Units Required to achieve 10% BNG
Area Units	697.77	510.08	-187.69	-26.90%	+257.47
Hedgerow Units	59.29	67.57	+8.28	+13.96%	0.00
Watercourse Units	10.65	12.46	+1.81	+17.04	0.00

Table 4.2 Additional units required to achieve 10% BNG - Kent Site

Habitat Type	Baseline	Post-Development	Total Net Unit Change	Total Net % Change	Units Required to achieve 10% BNG
Area Units	323.77	308.56	-15.21	-4.70%	+47.58
Hedgerow Units	17.33	12.39	-4.94	-28.51%	+6.67
Watercourse Units	42.95	40.29	-2.66	-6.20%	+6.96

4.1.2 Table 4.3 presents the combined results of the BNG assessments undertaken at the Suffolk Site and the Kent Site.

Table 4.3 Additional units required to achieve 10% BNG for the Proposed Project

Habitat Type	Baseline	Post-Development	Total Net Unit Change	Total Net % Change	Units Required to achieve 10% BNG
Area Units	1028.56	817.67	-210.89	-20.50	+313.75
Hedgerow Units	76.62	79.86	+3.24	+4.23	+4.42
Watercourse Units	53.60	50.85	-2.75	-5.13	+8.11

4.1.3 The outputs of the SBM depend on all retained and enhanced habitats meeting the target conditions, subject to the criteria outlined within SBM User Guide. 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. Habitat management prescriptions and monitoring schedules are detailed within **Application Document 7.5.7.1 Outline Landscape and Ecological Management Plan – Suffolk** and **Application Document 7.5.7.2 Outline Landscape and Ecological Management Plan – Kent** and cover management prescriptions and monitoring schedules for the lifetime of the asset. Submission of a Landscape and Ecological Management Plan in accordance with the outline LEMPs and thereafter compliance with the approved version is secured by Requirement 6 of Schedule 3 of the draft DCO (**Application Document 3.1**).

4.1.4 This BNG assessment is to be updated following detailed design to capture any changes in working areas and siting of infrastructure and will incorporate updated construction methodologies. Any adjustments to the BNG Parameters Line and the subsequent result of the BNG assessment will be made accordingly.

4.1.5 Section 5 presents the current BNG position for the Proposed Project and the approach to BNG that the Proposed Project intends to take forward.

5. Current BNG Position

5.1 Guidelines for NSIPs

5.1.1 As stated in Section 2.1, there is currently no legislative requirement for BNG in respect of NSIPs, as such there is also no guidance for the application and delivery of BNG for NSIPs. Current guidance for BNG assessments has been developed for the mandatory TCPA framework. In the absence of specific BNG guidance relating NSIPs this assessment has followed the majority of the principles and rules of the TCPA guidance documentation where appropriate.

5.2 National Grid 10% Target

5.2.1 National Grid will deliver a minimum 10% BNG with wider environmental and societal benefits. The Proposed Project will seek to provide BNG in three broad ways:

- on land in National Grid's ownership;
- through purchase of biodiversity units from commercial registered providers; and
- through collaborative delivery off-site with trusted partners.

5.2.2 Further detail is set out in Table 5.1 below.

Table 5.1 - BNG delivery methods and approach

Delivery method	Approach
Self - delivery	National Grid will develop and deliver BNG on-site around the proposed converter stations in locations where it would not be disturbed by future development or maintenance activities. National Grid may also consider delivering BNG off-site on land it owns as part of a broader mix of BNG delivery. Where appropriate and viable the sites will seek to provide wider environmental and societal benefits and access for EELS.
Commercial delivery	Delivery of off-site BNG habitat will be secured through purchase of biodiversity units from a registered commercial provider. These units will be delivered by registered providers who are on National Grid's Nature

Delivery method	Approach
	and Climate Framework and are able to deliver units that provide environmental and societal benefits. In addition to units delivered through its Nature and Climate Framework National Grid may also go to the wider commercial market to ensure delivery of sufficient units.
Partnership approach	National Grid will partner with trusted organisations to deliver off-site BNG habitat with wider environmental and societal benefits. National Grid will work with partners to identify, develop, manage and monitor sites that provide strategic value to nature. These strategic opportunities may help to deliver wider government objectives set out in its 25 Year Environment Plan to establish a nature recovery network, flood attenuation and carbon storage, and will implement the principles of the Lawton Report (Department of Environment and Rural Affairs, 2010) in providing 'bigger, better, more, joined' sites for nature.

5.2.3 The linear components of the Proposed Project do not lend themselves to on-site BNG delivery as the underground cable and overhead line are primarily routed across third party land, with the land being handed back to landowners and returned to its original use (mainly productive arable and grazing use).

5.2.4 In these circumstances National Grid would look to deliver BNG predominantly off-site through a partnership approach and commercial delivery.

5.2.5 Approximately 33% and 44% of the total area habitat biodiversity units is anticipated to be delivered on site, through the provision of landscape planting surrounding the converter stations in Suffolk and Kent respectively, and through landscape and riparian planting along the River Fromus (Suffolk). This landscape planting will provide screening of the converter stations and has been designed in a way that will increase habitat connectivity across the sites and the wider landscape. It includes sustainable urban drainage systems that have been designed to support wildlife and include riparian planting along the River Fromus. As detailed in Section 3.6, the Proposed Project is predicted to result in a net loss for area habitat units for both the Suffolk and Kent Onshore Schemes, a net gain in hedgerow units in the Suffolk Onshore Scheme, a net loss in hedgerow units in the Kent Onshore Scheme, a net gain in watercourse units in the Suffolk Onshore Scheme and a net loss in watercourse units in the Kent Onshore Scheme. As such, there is a shortfall of area habitat units in Suffolk and Kent, and a shortfall of hedgerow and watercourse units in Kent.

5.2.6 In accordance with best practice guidance and the biodiversity gain hierarchy, the delivery of biodiversity units should be initially considered on-site. However, as explained in paragraph 5.2.3, opportunities for additional habitat creation and enhancement on-site are limited, and land outside of the BNG Parameters Line will need to be considered for the Proposed Project to achieve 10% BNG.

5.2.7 The remaining biodiversity unit requirement is anticipated to be delivered through:

- partnership delivery to provide registered off-site biodiversity units with wider environmental and societal benefits;
- National Grid's Nature and Climate Framework suppliers to provide registered off-site biodiversity units with wider environmental and societal benefits; and
- working with other registered off-site biodiversity unit providers.

5.2.8 Further discussion will be undertaken with established and experienced conservation organisations which champion public access and engagement with the aims of delivering the required units in such a way to deliver a more meaningful and targeted provision of BNG (i.e. to benefit protected and notable species within local biodiversity action plans) that may work towards any targets within the incoming Local Nature Recovery Strategy (LNRS).

5.2.9 On-site BNG provision is aimed to be delivered, where possible, in year one of construction commencing; the aim is to undertake this where habitats can be protected during construction, with full delivery of on-site BNG provision delivered prior to the Proposed Project becoming operational as part of the transmission network.

5.2.10 It is proposed that significant on-site enhancements and off-site BNG delivery will be secured via a suitable legal mechanism. Discussions in relation to the appropriate mechanism are currently being undertaken with the local planning authorities and other relevant conservation bodies.

5.2.11 Long-term management, monitoring and reporting will be undertaken for a minimum of 30 years:

- on-site by National Grid through its supply chain;
- off-site by commercial providers as part of their commercial habitat banking package, secured through a legal agreement;
- off-site through partnership agreements, with arrangements specific to the partner(s) circumstances, secured through legal agreement.

5.2.12 National Grid will continue to explore a range of options to deliver BNG for the Proposed Project which provide the best choices and outcomes for nature and wider environmental and societal benefits, and provide value for money for consumers. These outcomes will be secured and in place prior to the Proposed Project being operated as part of the high voltage electricity transmission network.

References

CIEEM, IEMA & ciria. (2019). *Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide.* London: ciria.

DEFRA. (2024, July 01). *https://assets.publishing.service.gov.uk/media/669e45fba3c2a28abb50d426/The_Statutory_Biodiversity_Metric_-_User_Guide__23.07.24_.pdf.* Retrieved from https://assets.publishing.service.gov.uk/media/669e45fba3c2a28abb50d426/The_Statutory_Biodiversity_Metric_-_User_Guide__23.07.24_.pdf

DEFRA. (2024, February 14). *https://assets.publishing.service.gov.uk/media/669e4670ab418ab055592a23/The_Statutory_Biodiversity_Metric_Calculation_Tool_-_Macro_enabled_tool_23.07.2024.xlsm.* Retrieved from https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides.

DEFRA. (2024, February 05). *Multi-Agency Geographic Information for the Countryside*. Retrieved from https://magic.defra.gov.uk/home.htm: https://magic.defra.gov.uk/home.htm

Department for Energy Security & Net Zero. (2023). *Overarching National Policy Statment for Energy (EN-1).* London: Department for Energy Security & Net Zero.

Department for Energy Security & Net Zero. (2024). *National Policy Statement for electricity networks infrastructure (EN-5).* London: National Policy Statement for electricity networks infrastructure (EN-5).

Department of Environment and Rural Affairs. (2010). *Making Space for Nature: a review of England's wildlife sites and ecological network.* London: Department of Environment and Rural Affairs.

Dover District Council. (2024, October 1). *https://www.doverdistrictlocalplan.co.uk/uploads/Adopted-Local-Plan-Documents/V2-Dover-District-Local-Plan-to-2040-High-Resolution-for-download-RGB-87.44-MB.pdf.* Retrieved from https://www.doverdistrictlocalplan.co.uk/about: https://www.doverdistrictlocalplan.co.uk/uploads/Adopted-Local-Plan-Documents/V2-Dover-District-Local-Plan-to-2040-High-Resolution-for-download-RGB-87.44-MB.pdf

East Suffolk Council. (2020). *Suffolk Coastal Local Plan.* Woodbridge: East Suffolk Council.

Electricity Act 1989. (n.d.). *Electricity Act 1989.* London: UK Government.

Environment Act 2021. (n.d.). *Environment Act 2021.* London: UK Government.

HM Government. (2024, January 17). *River basin management plans: updated 2022*. Retrieved from https://www.gov.uk/guidance/river-basin-management-plans-updated-2022: https://www.gov.uk/guidance/river-basin-management-plans-updated-2022

Kent Nature Partnership. (2020). *The Kent Biodiversity Strategy 2020 to 2045.* Kent: Kent Nature Partnership.

Kent Nature Partnership. (2021). *State of Nature in Kent 2021.* Kent: Kent Nature Partnership.

Ministry of Housing, Communities & Local Government. (2024). *National Planning Policy Framework.* London: Ministry of Housing, Communities & Local Government.

Natural England. (2023, June 6). *Priority River Habitat - Rivers (England)*. Retrieved from https://naturalengland-defra.opendata.arcgis.com/datasets/7e5dd3c72f424fd5bc6f013d18dd770c_0/about

Thanet District Council. (2020). *Local Plan Adopted July 2020.* Thanet: Thanet District Council.

Town and Country Planning Act 1990. (n.d.). *Town and Country Planning Act 1990.* London: UK Government.

Appendix A Site Location Plans

Appendix B Plans

BNG Baseline Habitat

Appendix C Habits Plans Post Developments

Appendix D BNG Good Practice Principles for Development

D.1 BNG Good Practice Principles for Development

Appendix Table D.1 BNG Good Practise Principles for Development

Principle	How has this been applied in the assessment
Principle 1: Apply the Mitigation Hierarchy	See section 3.5.
Principle 2: Avoid losing biodiversity that cannot be offset by gains elsewhere	It has not been possible to offset losses on-site, as such a BNG delivery strategy is to be developed to allow for losses, of which most are temporary, to be offset at an off-site location.
Principle 3: Be inclusive and equitable	Regular workshops and meetings have been undertaken over the past 18 months to ensure that relevant disciplines working on the Proposed Project have input into the BNG design. Thematic meetings with relevant stakeholders and LPAs has also been undertaken to ensure that the approach to BNG has been in line with guidance and accepted by the LPA and relevant stakeholders.
Principle 4: Address risks	Risks have been addressed by assigning achievable post development target conditions. Developing an off-site BNG strategy will also address risks of securing BNG delivery for 30 years.
Principle 5: Make a measurable Net Gain contribution	The Proposed Project is committed to achieving +10% Gain
Principle 6: Achieve the best outcomes for biodiversity	It is considered that BNG delivery through external stakeholders and delivering a habitat creation and enhancement package that aligns with incoming Local Nature Recovery Strategy will achieve the best outcome for biodiversity.
Principle 7: Be additional	The 10% BNG target for the Proposed Project is additional to the requirement for NSIPs, which have no BNG requirement.

Principle	How has this been applied in the assessment
Principle 8: Create a net gain legacy	It is considered that delivery through external stakeholders will create a net gain legacy.
Principle 9: Optimise sustainability	Where possible sustainable construction methodologies are to be implemented. Where woody vegetation is to be felled it should be used to created hibernacula for protected and notable species.
Principle 10: Be transparent	This BNG assessment follows relevant guidance documents within any deviation from guidance documents outlined within this report.

National Grid plc
National Grid House,
Warwick Technology Park,
Gallows Hill, Warwick.
CV34 6DA United Kingdom

Registered in England and Wales
No. 4031152
nationalgrid.com