



Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

Appendix 9.19.2 - Outline Biodiversity Net Gain Strategy

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Glossary of Acronyms

BNG	Biodiversity Net Gain
CIEEM	Chartered Institute of Ecology and Environmental Management
CSM	Common Standards Monitoring
DCO	Development Consent Order
DEFRA	Department for the Environment and Rural Affairs
DEL	Dudgeon Extension Limited
DEP	Dudgeon Offshore Wind Farm Extension Project
DOW	Dudgeon Offshore Wind Farm
EIA	Environmental Impact Assessment
EUNIS	European Nature Information System
EPP	Evidence Plan Process
ES	Environmental Statement
ETG	Expert Topic Group
HDD	Horizontal Directional Drilling
HVAC	High Voltage Alternating Current
MW	Megawatt
NCC	Norfolk Country Council
NPPF	National Planning Policy Framework
NSIP	Nationally Significant Infrastructure Project
PEIR	Preliminary Environmental Information Report
SEL	Scira Extension Limited
SEP	Sheringham Shoal Wind Farm Extension Project
SOW	Sheringham Shoal Offshore Wind Farm
SSSI	Site of Special Scientific Interest
TCPA	Town and Country Planning
UK	United Kingdom

Glossary of Terms

Order Limits	The area subject to the application for development consent, including all permanent and temporary works for SEP and DEP.
Dudgeon Offshore Wind Farm Extension Project (DEP)	The Dudgeon Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure.
Evidence Plan Process (EPP)	A voluntary consultation process with specialist stakeholders to agree the approach, and information to support, the EIA and HRA for certain topics.
Expert Topic Group (ETG)	A forum for targeted engagement with regulators and interested stakeholders through the EPP.
Horizontal directional drilling (HDD) zones	The areas within the onshore cable route which would house HDD entry or exit points.
Jointing bays	Underground structures constructed at regular intervals along the onshore cable route to join sections of cable and facilitate installation of the cables into the buried ducts.
Landfall	The point at the coastline at which the offshore export cables are brought onshore, connecting to the onshore cables at the transition joint bay above mean high water
Onshore cable corridor	The area between the landfall and the onshore substation sites, within which the onshore cable circuits will be installed along with other temporary works for construction.
Onshore export cables	The cables which would bring electricity from the landfall to the onshore substation. 220 – 230kV.
Onshore Substation	Compound containing electrical equipment to enable connection to the National Grid.
Sheringham Shoal Offshore Wind Farm Extension Project (SEP)	The Sheringham Shoal Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure.
The Applicant	Equinor New Energy Limited. As the owners of SEP and DEP, Scira Extension Limited (SEL) and Dudgeon Extension Limited (DEL) are the named undertakers that have the benefit of the Development Consent Order. References in this document to obligations on, or commitments by, 'the Applicant' are given on behalf of SEL and DEL as the undertakers of SEP and DEP.



APPENDIX 9.12.2: OUTLINE BIODIVERSITY NET GAIN STRATEGY

1.1 Introduction

1.1.1 Purpose of this Document

1. This Outline Biodiversity Net Gain Strategy presents the framework for how the Sheringham Shoal Offshore Wind Farm Extension Project (SEP) and Dudgeon Offshore Wind Farm Extension Project (SEP) (hereafter 'SEP and DEP' or 'the Project') will assess its net impact to biodiversity and provides an outline of the potential habitat enhancement and creation opportunities to achieve biodiversity net gain (BNG) commitments across the onshore elements of the Project.
2. The focus of the Outline Biodiversity Net Gain Strategy is primarily BNG opportunities within the Order Limits, including the preliminary landscape designs at the Onshore Substation (see [Outline Landscape Management Plan](#) (document reference 9.18)) and habitat enhancement along the cable corridor (see [Section 1.5](#)). This strategy and BNG opportunities will be developed further with stakeholders post-consent with detailed and refined calculations provided on the final design.
3. This Outline Biodiversity Net Gain Strategy should be read in conjunction with the following documents:
 - Environmental Statement (ES) [Chapter 20 Onshore Ecology and Ornithology](#) (document reference 6.1.20);
 - ES [Chapter 26 Landscape and Visual Impact Assessment](#) (document reference 6.1.26)
 - ES [Appendix 20.6 Initial Biodiversity Net Gain Assessment Report](#) (document reference 6.1.20.6);
 - [Outline Landscape Management Plan](#) (document reference 9.18); and
 - [Outline Ecological Management Plan](#) (document reference 9.19).

1.1.2 Project Background

4. Equinor New Energy Limited (the Applicant) is seeking a Development Consent Order (DCO) for SEP and DEP which are extensions to the existing Sheringham Shoal Offshore Wind Farm (SOW) and Dudgeon Offshore Wind Farm (DOW), located in the southern North Sea off the north Norfolk Coast, with the closest point to the coast being 15.8km from SEP and 26.5km from DEP.
5. SEP and DEP will each have a maximum export capacity greater than 100 megawatts (MW). SEP will consist of between 13 and 23 wind turbines, each having a rated electrical capacity of between 15MW and 26MW. DEP will consist of between 17 and 30 wind turbines, each having a rated electrical capacity of between 15MW and 26MW. Taken together, there will be between 30 and 53 wind turbines and have the combined potential to generate renewable power for up to 785,000 United Kingdom (UK) homes.



6. As the owners of SEP and DEP, Scira Extension Limited (SEL) and Dudgeon Extension Limited (DEL) are the named undertakers that have the benefit of the DCO. References in this document to obligations on, or commitments by, 'the Applicant' are given on behalf of SEL and DEL as the undertakers of SEP and DEP.

1.1.3 Key Relevant Components of SEP and DEP

7. Onshore export cables would travel approximately 60km inland from landfall, west of Weybourne, North Norfolk, to a high voltage alternating current (HVAC) onshore substation near to the existing Norwich Main substation. The onshore substation would be constructed to accommodate the connection of both SEP and DEP to the transmission grid.
8. The main onshore components of SEP and DEP include:
- Landfall including transition joint bay;
 - Up to two ducts installed under the beach at the landfall by Horizontal Directional Drilling (HDD));
 - Onshore cable corridor, including:
 - Onshore export cables laid within open cut trenches or installed in ducts, and associated infrastructure including joint bays and link boxes;
 - Temporary construction access roads and haul roads;
 - Construction compounds; and
 - Trenchless crossings at sensitive features and habitats (e.g. A roads, main rivers and sites designated for nature conservation).
 - Onshore substation, including:
 - Substation operational access road; and
 - Associated earthworks, surface water attenuation and / or landscaping.
9. Further details of the key components of offshore and onshore infrastructure can be found in ES **Chapter 4 Project Description** (document reference 6.1.4).

1.2 Biodiversity Net Gain Policy Background

1.2.1 National Policy

10. The Government's 25 Year Environment Plan (Department for Environment, Food and Rural Affairs (Defra), 2018) describes an ambition to leave the environment in a better state than that which it inherited for the next generation. This ambition is supported by the National Planning Policy Framework (NPPF), which makes general provisions for the delivery of BNG.
11. The Environment Act 2021, contains measures for the protection and improvement of the environment, including BNG. Once in force, developers of proposals subject to the Town and Country Planning Act 1990 (TCPA) regime will be required to ensure a biodiversity gain of at least 10% and maintained for a minimum 30 years.

12. Although the relevant provisions of the Environment Act 2021 are not yet in force, BNG will also be a requirement for NSIPs across all terrestrial infrastructure project, or the terrestrial components of such project. It is anticipated that these requirements will be in place by November 2025. There is currently no marine net gain requirement.

1.2.2 Local Policy

1.2.2.1 Norfolk County Council

13. The Norfolk County Council's (NCC) Environmental Policy (NCC, 2020), states that 'environmental net gain' principle will be embedded in all developments, including housing and infrastructure. It also advises that focus of the net gain opportunities should be on the priority habitats and species in Norfolk as identified by the Norfolk Biodiversity Partnership and applications should seek to contribute positively to identified Green Infrastructure corridors.

1.3 Approach to Biodiversity Net Gain

14. The Chartered Institute of Ecology and Environmental Management (CIEEM) has defined BNG as a goal for a development project, policy, plan or activity in which the impacts on biodiversity are outweighed by measures taken to avoid and minimise the impacts, to restore affected areas and finally to offset the residual impacts, to the extent that the gain exceeds the loss. BNG must be defined relative to an appropriate reference scenario (CIEEM, 2019). The approach to BNG as recommended by CIEEM is as follows:

- Engagement with the Local Authority to understand whether local biodiversity plans supported environmental enhancement opportunities;
- Requested input from local and statutory stakeholders for environmental enhancement opportunities (on and offsite);
- Secured provisional project backing and budget availability; and
- Included a high-level commitment to environmental enhancement.

1.3.1 Equinor Biodiversity Position

15. Equinor published its biodiversity position in 2021. The position acknowledges the global biodiversity ambitions towards 2030 and 2050 and sets out five key areas for Equinor to focus on. Requiring all new projects which overlap geographically with protected areas or key biodiversity areas to develop a plan aiming to demonstrate net positive impact (or biodiversity net gain) for biodiversity is a key element of the position.

1.3.2 Biodiversity Net Gain Requirements

16. At the time of writing there is no statutory requirement for NSIPs to deliver BNG; however, as detailed above, this is due to be made mandatory in 2025. The Applicant has committed to deliver a positive BNG when delivering the project.

17. Marine developments, even if not NSIPs, are currently exempt from BNG requirements. The biodiversity metric used to measure biodiversity has not been developed for subtidal habitats; however, intertidal habitats are included in biodiversity metric 2.0 onwards. The biodiversity metric is described in more detail in **Section 1.4**.
18. The Initial BNG assessment (see ES **Appendix 20.6 Initial Biodiversity Net Gain Assessment** (document reference 6.1.20.6)) has therefore included all terrestrial habitats, including intertidal habitats to mean low spring, within the Order Limits.

1.3.3 SEP and DEP Biodiversity Net Gain Consultation and Commitment

19. In line with the SEP and DEP **Scoping Report** (document reference 6.4) the Applicant committed to achieve a positive BNG:
20. *“...‘biodiversity net gain’ will be sought through the mitigation hierarchy for onshore elements so that it can be demonstrated that the Projects are improving biodiversity, in line with new governmental mandate. So far net gain discussions have focussed on onshore project elements only, but these have recently been expanded to consider potential mechanisms in the intertidal zone as well. The Projects will follow these discussions and any new guidance in relation to intertidal and offshore net gain.”*
21. In the **Scoping Opinion** (document reference 6.4) PINS stated: *“Biodiversity Net Gain is not embedded in mitigation but sits above it. As such it should not be addressed as a mitigation process but should be informed by the mitigation required. Whilst Biodiversity Net Gain is not mentioned in National Policy Statements EN1 and EN3 the requirement to ‘pursue opportunities for securing measurable net gains for biodiversity’ is specifically mentioned in the more recently updated NPPF (para 174). Most recently, the Environment Bill 2019 –2020 proposed a requirement for 10% biodiversity net gain and confirmed a mechanism for measuring this using the metric developed by Defra. Although these proposals are not currently enshrined in law, we consider that the principles proposed reflect the spirit of the NPPF requirements and recommend that this methodology is adopted.”*
22. Natural England welcomed the commitment and stated through consultation on the **Scoping Opinion** (document reference 6.4), *“A wide range of mitigation and compensation measures will be required for the environmental impacts. At this early stage, we encourage the adoption of a landscape scale approach with a clear vision and coherent strategy of how measures can be delivered across a wider area beyond the compulsory purchase corridor of any route, cannot only provide mitigation and compensation but deliver a net gain for biodiversity and people. To achieve this will mean looking well beyond the footprint of any chosen route. Measures to create new, restore existing and link severed or isolated habitats across the wider area should be incorporated, with the focus on wetland and woodland habitats. This approach should also secure a net gain for biodiversity in line with government policy.”*

23. During Section 42 consultation Natural England welcomed that *“BNG details are being considered for hedgerows within the OLEMS and the proposed ecological mitigation and enhancement package. However, Natural England emphasised the importance of ensuring restoration to address potential impacts around particular areas, such as those used by bats (e.g. near the River Wensum, Alderford Common SSSI)”*. In addition, Natural England requested that *“OLEMS and mitigation is all updated with BNG details following survey updates and finalisation of cable route. ...Consideration needs to be given as to how these will be secured in the DCO.”*
24. Further consultation with Natural England and key stakeholder from the Ecology Expert Topic Group (ETG) has been undertaken via the Evidence Plan Process (EPP), details of which can be found in the **Consultation Report** (document reference 5.1).
25. Although the Government has advised that NSIPs and marine development projects will be brought within the mandatory BNG approach in the future, this exemption is unlikely to enable a ‘business as usual’ approach because the view by which stakeholders view mitigation and compensation will change as the delivery of BNG becomes more widespread.
26. The **Project Vision** (document reference 9.27) sets out Design Objectives including the intent to *“...where possible enhance the environment and green infrastructure including protecting biodiversity and developing measures aiming to deliver Biodiversity Net Gain“*

1.3.4 Permanent versus Temporary Impacts

27. When undertaking a calculation of the impact of the Project on biodiversity, all potential impacts should be quantified where possible, this includes temporary losses / impacts on habitats. For example, ‘time to target condition’ can be used when using the biodiversity metric (see below) to account for temporary impacts (CIEEM, 2019).
28. Arable fields have been omitted from the assessment due to their relatively low ecological value. The majority of arable fields are in open cut trenching areas within the Order Limits.
29. The term ‘open cut trenching’ refers to the primary method of cable installation, whereby the cable ducts are installed within the trenches and backfilled with soil. Cables would then be pulled through the pre-laid ducts at a later stage in the construction programme. See ES **Chapter 4 Project Description** (document reference 6.1.4).
30. Areas of arable habitat within the Order Limits will be reinstated to its pre-construction condition as soon as reasonably possible following onshore cable installation and completion of works in those areas. See **Outline Code of Construction Practice** (document reference 9.17).



1.4 Biodiversity Metric

31. The biodiversity metric is a habitat-based approach used to assess an area's value to wildlife and uses habitat features to calculate a biodiversity value. The biodiversity metric can be used to calculate how a project or development will alter the biodiversity value of a site by comparing pre- and post-development biodiversity values. The biodiversity metric is a standardised tool and used to demonstrate biodiversity net gains or losses.
32. The original biodiversity metric was developed in 2012. The biodiversity metric was updated to version 2.0 in 2018 and later in December 2019 as a 'beta test' version for consultation, to include common green infrastructure features. Shortly after in January 2020 an update including intertidal habitats was released for consultation. Biodiversity metric 3.0 has been used for the initial biodiversity unit calculations for SEP and DEP (ES [Appendix 20.6 Initial Biodiversity Net Gain Assessment](#) (document reference 6.3.20.6)).
33. The metric calculations commenced early in 2022 and since this time, there have been subsequent updates to the metric (with an updated version (3.1) now available) but as significant data input and analysis had been completed using metric 3.0, it was agreed with Natural England at an ETG meeting (held 30th June 2022) to proceed with the initial BNG calculations using version 3.0.
34. The biodiversity metric uses habitat as a proxy for wider biodiversity with different habitat types scored according to their relative biodiversity value. This value is then adjusted depending on the condition and location of the habitat, to calculate 'biodiversity units' for that specific project or development. The biodiversity metric can be used to measure both on-site and off-site biodiversity changes for a project or development. The biodiversity metric also accounts within it for some of the risks associated whenever new habitat is created or existing habitat is enhanced. In calculation terms, the change in biodiversity units is determined by subtracting the number of pre-intervention biodiversity units (i.e. those originally existing on-site and off-site) from the number of post-intervention units (i.e. those projected to be provided) (Panks *et al.* 2021).
35. The biodiversity metric allows measuring and accounting for biodiversity losses and gains resulting from development, allowing biodiversity losses to be measured and compensation. The biodiversity metric allows the biodiversity impact of a development to be quantified so that any offset requirement, and the value of the compensatory action, can be clearly defined.
36. The biodiversity metric can be used to measure both on-site and off-site biodiversity changes for a project or development. The biodiversity metric also accounts within it for some of the risks associated whenever new habitat is created or existing habitat is enhanced. In calculation terms, the change in biodiversity units is determined by subtracting the number of pre-intervention biodiversity units (i.e. those originally existing on-site and off-site) from the number of post-intervention units (i.e. those projected to be provided).

1.4.1.1 Biodiversity Metric Principles

37. The BNG process follows the Mitigation Hierarchy. This involves ensuring that anticipated impacts to habitats must, in sequential order of priority, be firstly avoided, then mitigated (ameliorated) and finally compensated for. For the purposes of BNG, compensation measures can include off-site measures. Standalone ecological enhancements (which do not compensate for an impact, such as planting a new hedgerow where no hedgerow habitat has been impacted) are considered separately from the Mitigation Hierarchy, but these too can be done off-site.
38. The key principles for using the biodiversity metric are as follows (reproduced from Panks et al. 2021).
- **Principle 1:** *The metric does not change the protection afforded to biodiversity. Existing levels of protection afforded to protected species and habitats are not changed by use of this or any other metric. Statutory obligations will still need to be satisfied.*
 - **Principle 2:** *Biodiversity metric calculations can inform decision-making where application of the mitigation hierarchy and good practice principles¹¹ conclude that compensation for habitat losses is justified.*
 - **Principle 3:** *The metric's biodiversity units are only a proxy for biodiversity and should be treated as relative values. While it is underpinned by ecological evidence the units generated by the metric are only a proxy for biodiversity and, to be of practical use, it has been kept deliberately simple. The numerical values generated by the metric represent relative, not absolute, values.*
 - **Principle 4:** *The metric focuses on typical habitats and widespread species; important or protected habitats and features should be given broader consideration.*
 - *Protected and locally important species needs are not considered through the metric, they should be addressed through existing policy and legislation.*
 - *Impacts on protected sites and irreplaceable habitats are not adequately measured by this metric. They will require separate consideration which must comply with existing national and local policy and legislation. Data relating to these can be entered into the metric, to give an indicative picture of the biodiversity value of the habitats present on a site, but this should be supported by bespoke advice.*
 - **Principle 5:** *The metric design aims to encourage enhancement, not transformation, of the natural environment. Proper consideration should be given to the habitats being lost in favour of higher-scoring habitats, and whether the retention of less distinctive but well-established habitats may sometimes be a better option for local biodiversity.*
 - *Habitat created to compensate for loss of natural or semi-natural habitat should be of the same broad habitat type (e.g. new woodland to replace lost woodland) unless there is a good ecological reason to do otherwise*

(e.g. to restore a heathland habitat that was converted to woodland for timber in the past12).

- *Although the metric does not explicitly consider the biodiversity value provided by individual species, consideration should be given to locally relevant species interests when creating or enhancing habitats.*
- **Principle 6:** *The metric is designed to inform decisions, not to override expert opinion. Management interventions should be guided by appropriate expert ecological advice and not just the biodiversity unit outputs of the metric. Ecological principles still need to be applied to ensure that what is being proposed is realistic and deliverable based on local conditions such as geology, hydrology, nutrient levels, etc. and the complexity of future management requirements.*
- **Principle 7:** *Compensation habitats should seek, where practical, to be local to the impact. They should aim to replicate the characteristics of the habitats that have been lost, taking account of the structure and species composition that give habitats their local distinctiveness.*
- **Principle 8:** *The metric does not enforce a mandatory minimum 1:1 habitat size ratio for losses and compensation but consideration should be given to maintaining habitat extent and habitat parcels of sufficient size for ecological function. A difference can occur because of a difference in quality between the habitat impacted and the compensation provided. For example, if a habitat of low distinctiveness is impacted and is compensated for by the creation of habitat of higher distinctiveness or better condition, the area needed to compensate for losses can potentially be less than the area impacted. The metric calculates losses and gains by size as well as by biodiversity unit value or percentage.*

1.4.2 How Biodiversity Units are Calculated

39. To measure the biodiversity value of habitats it is first necessary to define the site boundaries and then divide it into appropriate parcels or linear habitat features as needed.
40. Parcels are simply distinct portions of each habitat type present. The habitat type and size of these parcels, and the condition of the habitat it contains, should then be recorded.
41. The biodiversity unit value of each habitat parcel or linear feature is then calculated. To determine the unit value of a habitat parcel we assess its 'quality'. The assessment of quality comprises four components: distinctiveness, condition, and strategic significance.
42. Within the Order Limits, BNG calculations were completed for:
 - Biodiversity (area) Units;
 - Hedgerow (linear habitat) Units; and,
 - River (linear habitat) Units.

- 43. As precise construction footprints have not been fixed at the time of calculating the initial biodiversity net gain calculations, habitats to be lost / retained are based on anticipated worst-case construction impacts within the Order Limits. The initial BNG calculations are therefore preliminary and will be further refined during detailed design post-consent.
- 44. The following sections are summarised from Natural England Joint Publication JP039, Biodiversity Metric 3.0 User Guide, and Technical Supplement (Panks *et al.* 2021).

1.4.2.1 Habitat Definition

- 45. Biodiversity Metric 3.0 uses level 4 of the UK Habitats Classification¹ for most habitats.
- 46. However, this classification includes only a limited number of habitats for intertidal and marine ecosystems. Instead, the European nature information system (EUNIS) has been used to classify intertidal habitats. EUNIS can be used to classify European habitats ranging from natural to artificial, from terrestrial to freshwater and marine. Natural England guidance (Natural England, 2020) states that intertidal habitats should be classified to EUNIS Level 4 which provides the detail needed to separate higher and lower value habitats. Manmade artificial habitats are included in the biodiversity metric so that they can be distinguished from naturally occurring habitats. Therefore, intertidal surveys (and marine surveys should BNG be expanded to include marine habitats) need to characterise and map the extent of habitats to at least EUNIS Level 4.
- 47. Each habitat is given a value based on its distinctiveness and its area in hectares (ha), before further modifiers relating to habitat condition, and it's strategic significance are applied.

1.4.2.2 Distinctiveness

- 48. In biodiversity metric 3.0 habitats are assigned to distinctiveness bands based on the following criteria:
 - Total amount of remaining habitat in England (its rarity);
 - Proportion of habitat protected in Site of Special Scientific Interest (SSSI): Where less is protected in SSSIs, it is considered of higher distinctiveness;
 - UK Priority Habitat Status²⁹: Priority Habitats are classed as High or Very High distinctiveness; and
 - European Red List Categories.
- 49. Biodiversity metric 3.0 has five classes of distinctiveness on a scale from Very High (score of 8), High (score 6), Medium (score 4), Low (2) to Very Low (score of 0).

¹ [REDACTED] (accessed 31st June 2022)

50. The biodiversity metric assigns distinctiveness bands at broadscale habitat level “based on an assessment of their distinguishing features including consideration of species richness, rarity (at local, regional, national and international scales), and the degree to which a habitat supports species rarely found in other habitats”. In the terrestrial approach the non-natural or semi natural habitats are of medium to very-low distinctiveness depending on how ‘colonised or ‘natural’ they are.
51. Most intertidal habitats are scored for distinctiveness at EUNIS level 3 (Natural England, 2020). Natural England considers that that all semi-natural and natural intertidal habitats are of sufficient importance for nature conservation that they require a distinctiveness category of at least ‘high’. Artificial habitats have been included in the metric with a score of ‘low’ (Panks et al. 2021).
52. Some natural intertidal habitats, like those on bedrock including peat and clay exposures, and chalk, are considered irreplaceable due to their unique origin, low or lack of resilience and limited recoverability from impacts. Peat, clay and chalk exposures are uncommon or of significant international importance adding to the biodiversity interest where they occur. As a result, these vulnerable habitats have a distinctiveness score of ‘very high’ for net gain delivery actions but are considered non-tradeable for net gain loss calculations (Panks et al. 2021).
53. For freshwater bodies an alternative red list approach has been used. The major reason for this is that the extent or area of freshwater bodies is not often reduced but quality (chemical, biotic etc.) can have been fundamentally changed and have effectively degraded the habitat.

1.4.2.3 Condition Assessment

54. The approach to condition assessment is similar to that used for Common Standards Monitoring (CSM). Habitat condition assessment surveys were undertaken concurrently with the Phase One Habitat Surveys that were undertaken between 2020 and 2021, where landowner access had been permitted. This equates to approximately 90% of the Order Limits.
55. The remaining areas, which accounts for approximately 10% of the Order Limits were mapped using Norfolk Biodiversity Information Service (NBIS) Living Maps; however, this data have insufficient detail to inform the BNG calculations and were therefore excluded at this stage.
56. Condition assessment of habitats were undertaken utilising published condition sheets (Natural England, 2021) which cover broader habitat attributes, from the best and worst examples of each habitat type.



1.4.2.4 Strategic Significance

57. A score based on whether the location of the development and / or off-site work has been identified locally as significant for nature. It recognises that there is a risk for biodiversity from a change in location of a habitat (Natural England, 2019). The strategic significance multiplier has a positive effect on the biodiversity unit score, giving extra value to habitats that are located in optimum locations for biodiversity and other environmental objectives. For example, if the area identified is within a Local Policy/Plan Nature Recovery Areas the biodiversity unit value is multiplied by 1.15. If the area is not identified as in a desirable location in local plans or related projects the multiplier is 1.

1.4.2.5 Biodiversity Calculations

1.4.2.5.1 Baseline Biodiversity Unit Calculation

58. This section of the tool allows you to describe the habitats as they are before the planned development or other intervention takes place.

$$\text{Biodiversity Units Pre-Intervention} = \text{Area} \times \text{Distinctiveness} \times \text{Condition} \times \text{Strategic Significance}$$

59. It can include a biodiversity calculation of the area impacted by the development alone or added to a calculation of an area of habitat identified for improvement and compensation.

1.4.2.5.2 Calculation of Post-impact Biodiversity Units

$$\text{Biodiversity Units of Proposed Action} = \text{Area} \times \text{Distinctiveness} \times \text{Condition} \times \text{Significance} \times \text{Connectivity} \times \text{RISKS (Difficulty} \times \text{Temporal} \times \text{Location)}$$

60. The calculation of post-impact biodiversity is the same as calculation of the baseline but with additional factors used to describe the risks associated with enhancing or creating a habitat. These are:

- Spatial risk: In delivering compensation for habitat loss, the further a habitat is recreated is from the site of the loss, the greater the risk.
- Delivery risk: The level of difficulty involved in creating or restoring habitat.
- Temporal risk: To what extent the timing of compensation delivery could result in a temporary loss of biodiversity. This risk includes the time it takes for a habitat to reach its target condition.

61. Again, this will include a biodiversity calculation of the area impacted by the development post-intervention and any area(s) of habitat identified for improvement and compensation, factoring in the biodiversity compensation target to calculate the number of post-intervention biodiversity units (i.e. taking into account the predicted impact of the project plus the effect of any proposed intervention).



62. This can include recovery of biodiversity at the impacted site, the calculation of which is included in the temporal risk (time to recover).

1.4.2.6 Calculation of Biodiversity Net Gain

63. As described previously, BNG will be attained to the required level when the post-intervention units (i.e. taking into account the predicted impact of the project plus the effect of any proposed intervention) are at least higher than the original (pre-intervention) habitat biodiversity units.

<p>Net Gain = Proposed action biodiversity units - Pre-intervention biodiversity units</p>
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1.5 Biodiversity Net Gain Opportunities

64. Habitat enhancements and creation considered by SEP and DEP to achieve the Projects commitment of delivering BNG are presented below. These include the preliminary landscape designs at the Onshore Substation (see **Outline Landscape Management Plan** (document reference 9.18)) and habitat enhancement along the cable corridor.

65. Where temporary impacts are predicted, all habitats will be reinstated to pre-work conditions, this includes but is not limited to:

- Reinstatement of hedgerows and tree lines (where removal is required);
- Returning grassland to pre-construction condition; and
- Replacing like-for-like habitats, wherever feasible.

66. Onshore habitat opportunities considered include:

- Native tree planting, including alongside watercourses;
- Hedgerow infilling of existing gaps to improve connectivity;
- Enhancement of existing and new hedgerows with more diverse mix of woody species;
- Native scrub planting in the area of Weybourne Woods; and
- Tree and shrub planting, wildflower sowing, and tussocky grassland creation within the area of the onshore substation.

67. Opportunities for habitat enhancement include replacing lost habitats with higher distinctiveness habitats (e.g. replanting lost modified grassland areas with a native species-rich mixture to achieve neutral grassland habitat) or improving the condition of existing retained or reinstated habitats (e.g. through altered management).

68. There may also be opportunity to replace arable land with other habitats of higher distinctiveness (e.g. scrub, grassland, woodland) or increasing arable margins.



69. The Project has committed to replanting removed hedgerows with an increased diversity of species which will be managed to achieve at least 'moderate' condition. Existing gaps in hedgerows will also be infilled throughout the Order Limits, to improve the species diversity and condition of retained hedgerows. Aside from this, there are opportunities for hedgerow planting throughout the cable corridor in areas of arable land where there are not existing hedgerows.
70. The majority of watercourses are being avoided by HDD, including all rivers and streams. There will be open cut through a small number of ditches, where this occurs, these will be reinstated and managed to achieve the same condition. Many of the ditches within the Order Limits are part of arable drainage systems and are in relatively poor ecological condition. There are opportunities to improve the condition of both reinstated and retained ditches, which would help to ensure a net biodiversity gain of River Units.
71. **ES Appendix 20.6 Initial Biodiversity Net Gain Assessment** (document reference 6.3.20.6) provides the initial biodiversity net gain calculations within the Order Limits and has been used to identify whether a biodiversity net gain can be achieved. BNG opportunities will be developed further with stakeholders' post-consent with detailed and refined calculations provided on the final design.

1.6 SEP and DEP BNG Implementation

72. SEP and DEP have made a voluntary commitment to achieve BNG. Opportunities to deliver BNG have focussed to areas within the Order Limits. With the exception of habitats at the onshore substation, BNG would be secured via landowner agreements, and agreed post-consent.
73. Habitat creation and enhancements at the onshore substation would be managed and maintained for the operational lifespan of the Project.
74. Project commitments include the monitoring / maintenance of enhancement planting along the cable corridor for a 10 year period after the completion of works. These commitments are detailed in the **Outline Landscape Management Plan** (document reference 9.18) and **Outline Ecological Management Plan** (document reference 9.19).

1.6.1 Working with Stakeholders to Identify Further BNG Opportunities

75. As part of the ongoing engagement with the local community and interested groups, the Applicant has been in collaboration with local voluntary groups; academic/research and innovation institutions; and local businesses that are focused on enhancing biodiversity, nature inclusive design, nature recovery/restoration, green infrastructure and carbon sequestration.
76. The Applicant aims to build on this early engagement to identify and maximise the impact of its BNG activities on nature and people, in discussion with key statutory stakeholders. Meanwhile, it will seek opportunities to collaborate over research and innovation opportunities (as far as is practical).

1.7 Summary

77. SEP and DEP has committed to delivering a BNG post-construction for the onshore elements of the Project. This commitment is currently voluntary; however, the Environment Act 2021 will result in BNG becoming a mandatory requirement for NSIPs across all terrestrial infrastructure projects, or the terrestrial components of such project, by November 2025.
78. This outline document presents the framework for how SEP and DEP will assess its net impact to biodiversity and provides an outline of the potential habitat enhancement and creation opportunities to achieve a BNG within the Order Limits.
79. This strategy and BNG opportunities will be developed further with stakeholders post-consent with detailed and refined calculations provided on the final design.

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