



# The Sizewell C Project

## 9.5 Biodiversity Net Gain Report - Sizewell Link Road

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Revision: 1.0  
Applicable Regulation: Regulation 5(2)(q)  
PINS Reference Number: EN010012

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May 2021

Planning Act 2008  
Infrastructure Planning (Applications: Prescribed  
Forms and Procedure) Regulations 2009



# BIODIVERSITY METRIC 2.0 CALCULATIONS – SIZEWELL LINK ROAD – 2021 DESIGN UPDATES

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## EXECUTIVE SUMMARY

Arcadis Consulting (UK) Limited has been commissioned on behalf of SZC Co., to undertake Biodiversity Metric 2.0 (BM 2.0) calculations of the Sizewell Link Road due to recent design changes.

Under the proposals for the Sizewell Link Road it is estimated that there is a potential increase in biodiversity unit values for habitats of 45.56%, and an increase in biodiversity unit values for hedgerows of 27.71%. This increase in hedgerow units is partly due to the predicted increase of the total length of hedgerows on the site from 10.36km to 16.98km.

In addition to the Sizewell link road, the main development site and two other off-site associated developments were also assessed via BM 2.0 (two village bypass and Yoxford roundabout) and these are presented in separate reports. These sites were chosen for assessment via the metric as they are permanent developments which have potential for permanent habitat loss. When considered as a whole there is predicted to be an approximate 19% increase in biodiversity units across the main development site and three associated developments. The achievement of these units scores is reliant upon achieving the target condition for created habitats.

An increase in area is predicted for the most valuable habitats on the site; grassland and woodland and forest. An increase in the biodiversity unit value of grassland is also predicted. Cropland is predicted to undergo reductions in area and unit value.

## 1 INTRODUCTION

### 1.1 Overview

- 1.1.18 Arcadis Consulting (UK) Limited has been commissioned on behalf of SZC Co., to update the Biodiversity Metric 2.0 (BM 2.0) calculations carried out for the Sizewell link road at **Volume 6, Chapter 7, Annex 7-4** of the Sizewell C Project **Environmental Statement (ES)** [[APP-462](#)].
- 1.1.21 The Sizewell link road will comprise a new, permanent, 6.8 kilometre (km) single carriageway road, with a design speed of 60 miles per hour (mph), which begins at the A12 south of Yoxford, bypasses Middleton Moor and Theberton before joining the B1122. The red line boundary is presented in **Plate** . Two other associated developments (AD sites) and the main development site were assessed via the BM 2.0, in separate reports. These sites were chosen for assessment via the metric as they will be permanent and have the potential for permanent habitat loss. In addition to the Sizewell Link Road these other AD sites are:
- A permanent road to bypass Stratford St Andrew and Farnham (referred to as the 'two village bypass' ) to alleviate traffic on the A12 through the villages; and
  - Permanent highway improvements at the junction of the A12 and B1122 east of Yoxford (referred to as the 'Yoxford roundabout' (Yoxford)) and other road junctions to accommodate Sizewell C construction traffic.
- 1.1.31 Updated Reports are provided for the main development site ('Biodiversity Metric 2.0 Calculations – Main Development Site – 2021 design updates') and the two AD sites listed above ('Biodiversity Metric 2.0 Calculations – Two Village Bypass – 2021 design updates' and 'Biodiversity Metric 2.0 Calculations – Yoxford Roundabout – 2021 design updates'), which supersede those presented as **Volume 2, Chapter 14 Appendix 14E** of the **ES** [[APP-266](#)], Volume 5, Chapter 7 Annex 7-4 [[APP-426](#)] and **Volume 7, Chapter 7 Annex 7-4** [[APP-495](#)] of the **ES**.



**Plate 1: Aerial imagery of the site and redline boundary**

## 1.2 Site overview

- 1.2.18 The proposed development site is approximately 3km from the east coast of Suffolk and extends to the west. It is located 400m to the north-west of the main development site. The site, presented in **Plate 1** and in **Figure 1** predominantly comprises intensively managed arable land bounded by hedgerows. There are also small areas of species-poor semi-improved grassland. No designated sites are present within the site.

## 1.3 Proposed scheme

- 1.3.18 The route of the Sizewell link road, shown in Figures 6.2.2- 6.2.8, would bypass a section of the existing B1122 with a new 6.8km long single carriageway road to the south-west. The proposed road would be 7.3 metres (m) wide, with additional 1m hard strips and 2.5m wide verges. Along the route of the Sizewell link road, swales would be provided approximately 3.5m wide for highway drainage. The road would start at the A12 south of Yoxford, bypasses Middleton Moor and Theberton before joining the B1122 to the west of the main development site.

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## 1.4 Changes to the scheme

- 1.4.12 Changes are proposed to the site boundary along the scheme, along with changes to the proposed soft and built estate within the red line boundary. These changes mean that an update to the biodiversity net gain calculations is required.

## 1.5 Biodiversity Targets

- 1.5.11 This report has been prepared in response to SZC Co., government and stakeholder interest around quantifying biodiversity. Defra (Department for Environment Food and Rural Affairs) has presented their intentions for biodiversity, in their summary of responses to the biodiversity net gain consultations published in July 2019 (Defra, 2019).
- 1.5.21 A requirement to commit to a 10% increase in biodiversity units to achieve net gain for new developments is likely to be mandated through the upcoming Environment Bill (the bill is currently in the reporting stage in the House of Commons), with exemptions made for Nationally Significant Infrastructure Projects (NSIPs).
- 1.5.31 The scope of this report and analysis is to present the biodiversity unit change due to the proposed development. The ecological impacts and associated mitigation to ensure legislative and policy compliance are presented in **Volume 6, Chapter 7** of the **ES** [\[APP-461\]](#) and its associated documents and as updated by the **ES addendum** [\[AS-185\]](#).

## 2 METHODOLOGY

### 2.1 Biodiversity metric 2.0

- 2.1.1 The purpose of this document is to evaluate the potential of the proposed development to achieve biodiversity net gain. This approach utilises information on the habitats and features of the site before and after the Development to calculate a biodiversity value, utilising this information to calculate a change in the biodiversity value of the Outline Planning Area (OPA).
- 2.1.2 This report supersedes one provided in the application (**Volume 6, Chapter 7 Appendix 7A** [\[APP-462\]](#) of the **ES**) and is provided to account for updated red line boundaries, provide greater clarity around assumptions and justifications and to reflect comments made by Natural England and others on the earlier report. It had originally been intended to update the assessments to use an updated Biodiversity Metric but a delay in the release of that metric means that has not yet been possible.
- 2.1.3 The calculations were therefore undertaken using the Biodiversity Metric 2.0 issued by Defra and Natural England (details can be found at Crosher et al., 2019 a and b) a spreadsheet-based tool into which data can be entered to carry out biodiversity net gain calculations. The version used for these calculations is that released in December 2019. The calculations were carried out using the same methodology as those within the ES, with the exception of where updated guidance has been provided (Natural England, 2020). Such instances are made clear in the relevant sections below.
- 2.1.4 When considering baseline conditions, the metric takes account of several factors, detailed below. The numbers in brackets show the multipliers used by the metric for each category.
- Habitat type;
  - Size of habitat parcel;
  - The distinctiveness of the habitat type
    - Value predetermined for each habitat type on a scale of Very Low (0), Low (2), Medium (4), High (6) and Very High (8).
    - Distinctiveness considers the rarity of the habitat, the amount of the percentage of habitat protected in SSSIs, the UK Priority Habitat Status and the European Red List Categories for the habitat.
  - The condition of each habitat parcel;

- Value assigned based on a scale of Poor (1), Fairly Poor (1.5), Moderate (2), Fairly Good (2.5) and Good (3). For some habitat types this is pre-determined.
- Condition sheets (provided in Crosher et al., 2019b) were used where possible to assess the condition.
- How ecologically connected the parcels are; and
  - Value assigned based on a scale of Low (1), Medium (1.1) and High (1.15).
- Whether the parcels are in locations identified as local nature priorities.
  - Value assigned based on a scale of Low (1), Medium (1.1) and High (1.15) strategic importance.

2.1.5 Data is entered into the metric under the UK habitat classification typologies. Baseline data was largely collected under Phase 1 Habitat survey Typologies. A conversion was carried out using a table within the tool and using the guidance document produced by UK Habitat Classification Working Group (2018).

2.1.6 The following resources were used to inform the assessment:

- **Sizewell Link Road Survey Report 2020** [[AS-036](#)];
- **ES Volume 6, Chapter 7, Technical Appendix Baseline 7A: Annex 7A.3: Primary Data** [[APP-462](#)];
- Aerial imagery (Google Earth, 2020);
- MAGIC (2020) mapping;
- **ES Addendum Volume 1, Chapter 6** [[AS-185](#)]; and
- **Vegetation Clearance and Retention Plans - ES Addendum, Volume 2, Chapter 6, Figures 6.2.9 to 6.2.12** [[AS-198](#)].

## 2.2 Unit calculation

2.2.1 To calculate the biodiversity units of the site as a whole, the unit for each of the habitat types is calculated and then multiplied by the size of this habitat, with a connectivity factor included (as described within Crosher et al., (2019a)). The unit number is based upon the habitat's distinctiveness, condition, ecological connectivity and strategic significance. For non-linear habitats, such as woodland or grassland, the area of the habitat is used to assess its size, whereas length is used

for linear habitats, such as hedgerows and rivers. The biodiversity unit numbers of area-based habitats and linear hedgerows and/or rivers are separate and cannot be summed. As such they should be evaluated separately. Area based habitats and hedgerows are largely assessed in the same way and any differences are highlighted below.

- 2.2.2 This section describes how this proxy unit for biodiversity has been applied to the existing 'before' habitats and the proposed 'after' (post-intervention) habitats. Full details of the BM 2.0 can be found in Crosher et al. (2019a and b).

b) Habitat size

- 2.2.3 The size of the different habitats was calculated in GIS. The area taken up by scattered trees throughout the site was calculated by inputting the number of scattered trees into the 'Street Tree Helper Tool', included in the Biodiversity Metric 2.0 calculation tool.

b) Habitat distinctiveness

- 2.2.4 The metric assigns a pre-defined distinctiveness band to each of the habitats and linear features.

xi. Area based habitats

- 2.2.5 As detailed in Crosher et al. (2019a), this is assessment is based upon "species richness, rarity (at local, regional, national and international scales), and the degree to which a habitat supports species rarely found in other habitats". **Table 1** provides detail of the bandings to which each area-based habitat is assigned.

**Table 1: Area based habitat distinctiveness valuation bandings**

| Distinctiveness band | Multiplier | Typical habitats                                                                                                                                                                                                        |
|----------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very High            | 8          | Priority habitats as defined in Section 41 of the Natural Environment and Rural Communities (NERC) Act (HMSO, 2006) that are highly threatened, internationally scarce and require conservation action e.g. blanket bog |
| High                 | 6          | Priority habitats as defined in Section 41 of the NERC Act (HMSO, 2006) requiring conservation action e.g. lowland fens                                                                                                 |
| Medium               | 4          | Semi-natural habitats not classed as a Priority Habitat                                                                                                                                                                 |

|          |   |                                                                                                          |
|----------|---|----------------------------------------------------------------------------------------------------------|
| Low      | 2 | Habitat of low biodiversity value. Temporary grass and clover ley; intensive orchard; rhododendron scrub |
| Very low | 0 | Little or no biodiversity value e.g. hard standing or sealed surface                                     |

## ii. Hedgerows and lines of trees.

- 2.2.6 The distinctiveness of hedgerows and lines of trees is based upon their physical structure, the woody species composition and any association with physical features, such as banks and ditches. An assessment of ground flora is not included within the metric. **Table 2** details the distinctiveness categories of each of the types of hedgerows and line of trees. Guidance is not provided on how “Line of trees” should be differentiated from “Line of trees (ecologically valuable)”. It was assumed that non-native and ornamental lines of trees were considered not to constitute ecologically valuable lines of trees. Further detail is provided in Crosher et al. (2019a).

**Table 2: Hedgerow distinctiveness categories and multipliers**

|                                | Woody plant structural composition               |                         |                                                  |                                       |               |
|--------------------------------|--------------------------------------------------|-------------------------|--------------------------------------------------|---------------------------------------|---------------|
| Associated features            | Species rich hedgerow (inc. hedgerow with trees) | Native species hedgerow | Other hedgerow (ornamental / non-native species) | Line of trees (ecologically valuable) | Line of trees |
| Associated earth bank or ditch | High<br>6                                        | Medium<br>4             | Low<br>2                                         | Medium<br>4                           | Low<br>2      |
| None                           | Medium<br>4                                      | Low<br>2                | Very Low<br>1                                    | Medium<br>4                           | Low<br>2      |

## c) Habitat condition assessment

- 2.2.7 The condition of the habitat is defined as: “the biological ‘working-order’ of a habitat type judged against the perceived ecological optimum state for that particular habitat.” (Crosher et al., 2019b). This provides a measure of variation in the quality of areas of the same habitat type.

## xi. Area based habitats

- 2.2.8 A habitat condition assessment sheet is provided for each habitat type within Crosher et al. (2019b), which should be used to assign each habitat parcel to each of the categories detailed in **Table 3**. Each condition sheet is composed of a list of pass/fail criteria. The ratio of 'passes' to 'fails' is used to determine the habitat condition.

**Table 3: Condition bandings for the habitats on the site**

| Category          | Multiplier |
|-------------------|------------|
| Good              | 3          |
| Fairly good       | 2.5        |
| Moderate          | 2          |
| Fairly poor       | 1.5        |
| Poor              | 1          |
| N/A – Agriculture | 1          |
| N/A – other       | 0          |

## ii. Hedgerows

- 2.2.9 A single condition sheet is provided for hedgerows, although lines of trees have a separate sheet. Both of these can be found in Crosher et al. (2019a), along with the pass/fail ratios for both types of linear feature. The condition categories and multipliers are the same as shown in **Table 3**, but 'fairly good' and 'fairly poor' are not options.

## d) Ecological connectivity assessment

- 2.2.10 Version 2.0 of the metric included a valuation of 'ecological connectivity'. The connectivity factor relates to the relationship of a "particular habitat patch to other surrounding similar or related semi-natural habitats facilitating flows of species and ecosystem services" (Crosher et al., 2019b). Increased connectivity with the surrounding area corresponded to a higher value for the ecological connectivity factor. Higher habitat connectivity increases the value of a habitat, all else being equal. For example, a well-connected area of woodland will likely have a higher biodiversity than an equivalent, unconnected woodland. However, in the Biodiversity Metric 2.0 - Beta Test: Summary Consultation Response (Natural England, 2020)

the decision was taken to fix connectivity at Low (x1 multiplier) for all habitats until the metric is next reviewed. Therefore, the connectivity applied to all habitats identified on site was set at Low (1x multiplier).

#### e) Strategic significance assessment

- 2.2.11 Strategic significance assesses the value of habitats from the point of view of environmental objectives and preferred locations for biodiversity. Local and national policy was reviewed to quantify the strategic significance of each habitat area. **Table 4**, based upon Table 5-5 in Crosher et al. (2019a), was used to assist with this assessment.

**Table 4: Strategic significance categories and multipliers**

| Category | Description                                                | Multiplier |
|----------|------------------------------------------------------------|------------|
| High     | Within area formally identified in local strategy          | 1.15       |
| Medium   | Location ecologically desirable but not in local strategy  | 1.1        |
| Low      | Area/compensation not in local strategy/ no local strategy | 1          |

## 2.3 Baseline calculations

- 2.3.1 The number of biodiversity units provided by each habitat currently within the proposed development site is calculated by multiplying the values for Distinctiveness, Condition, Connectivity, Strategic location and the size of each habitat in hectares (ha). Hedgerows are evaluated in the same way, but base upon their length (in km), rather than area. This value represents the baseline condition of the site, in terms of biodiversity units. Further detail can be found in Crosher et al. (2019a and b). **Appendix 7A** of the **ES** [\[APP-462\]](#), satellite imagery (Google Earth, 2020), and MAGIC (2020) were used to inform these baseline calculations.

## 2.4 Post-development calculations

- 2.4.1 The site is then reassessed for the post-development conditions that will be present after the landscape treatments are implemented. The number of biodiversity units provided by each habitat within the proposed development site is calculated in the same way as the baseline habitats, but with the additional multipliers detailed in **Table 5**. Further detail regarding these multipliers is presented in 2.5. Post-development plans provided by the client were used to inform post-development calculations.

**Table 5: Risk components included in post-developments calculations**

| Risk factor                                   | Description                                                             |
|-----------------------------------------------|-------------------------------------------------------------------------|
| Difficulty of creating or restoring a habitat | A standard score based on how difficult the habitat type is to create.  |
| Temporal risk                                 | A standard score based on how long the habitat type takes to establish. |

2.4.2 The following sources were used to assess the on-site conditions after the landscape treatments are implemented:

- Illustrative Masterplan of Sizewell Link Road (Figures 6.2.2 – 6.2.8)

## 2.5 Post-Development delivery risks

### a) Difficulty of creating or restoring a habitat

2.5.1 This 'risk' relates to the difficulty of the habitat restoration or recreation. There are four bands from Low difficulty, to Very high difficulty, with the value multiplier shown below in **Table 6**.

**Table 6: Difficulty categories and multiplier**

| Category  | Multiplier |
|-----------|------------|
| Very high | 0.1        |
| High      | 0.33       |
| Medium    | 0.67       |
| Low       | 1          |

2.5.2 There is also different terminology and different treatment for the mechanism by which habitat are created. For example, different biodiversity change scenarios carry different levels of risk and the multipliers are applied differently to reflect this. Three distinct biodiversity habitat change scenarios are recognised in the biodiversity metric 2.0:

- **Habitat creation.** Where one habitat type is replaced by another or the habitat is destroyed (e.g. by development works) and the same habitat is recreated.
- **Habitat enhancement** of an existing habitat to improve its distinctiveness and / or condition. An example of restoration would be the transformation of a derelict chalk grassland dominated by scrub and coarse grasses to a

continuous area of chalk grassland with isolated woody species and an abundance of fine-leaved grasses.

- **Accelerated habitat succession.** This recognises that certain interventions are comparable with ecological succession processes which result in a more distinctive habitat type (for example, grassland changing into scrub and ultimately woodland). The biodiversity value of the original habitat is not abruptly lost, but gradually changes as the new habitat type emerges. Accelerated succession interventions are subject to 'trading down' principles. Accelerated succession is a purposeful sustained intervention and it is envisaged that there are a limited number of situations where this would apply. For example, the planting of an existing grassland with thorny shrubs to facilitate natural tree regeneration to establish a woodland without removing the grassland.

- 2.5.3 Habitat creation and accelerate succession have the greatest risk, while enhancement carries less risk. It should be noted that accelerated succession is not recognised as an option for hedgerows.

b) Temporal risk

- 2.5.4 Many factors influence how long a habitat takes to go from the point of creation or restoration to the desired end point condition. Factors are often site dependent but can include soil nutrient status, soil types and pH, site preparation, climate and the neighbouring habitats and species matrix available to colonise the new or restored habitat. The timeframe is also resource dependent. With sufficient time and money most habitats can be recreated more rapidly but allowing a more gradual process may be more beneficial to wildlife in the longer term.

- 2.5.5 For the purposes of the Defra Biodiversity Metric 2.0 average time estimates need to be used, accepting that there will be variation from this central estimation. For example, some sites will take longer, where conditions are more nutrient enriched or higher altitude or north facing. Average estimates of the time to target condition were largely expert driven and build upon the considerations that shaped judgements of the difficulty to create or restore a habitat. They were additionally informed by field experience, industry case studies and a body of practical experience. The time to target condition varies between 0 and greater than 32 years, with 0 years having a multiplier of 1. The multiplier decreases by 3.5% per year.

c) Spatial risk

- 2.5.6 A separate risk multiplier is applied to post-development sites outside of the main development site. This incentivizes the utilisation of sites nearby to the development, for ecological and social reasons. Sites within the same local planning authority area (LPA) or National Character Area (NCA), it is deemed sufficiently close to address

ecological and social concerns. Higher multipliers are assigned to more distant sites, as shown in **Table 7**.

**Table 7: Off-site risk categories (LPA – local planning authority area, NCA – National Character Area)**

| Category                                                                           | Multiplier |
|------------------------------------------------------------------------------------|------------|
| Compensation inside LPA or NCA of impact site.                                     | 1          |
| Compensation outside LPA or NCA of impact site but in neighbouring LPA or NCA.     | 0.75       |
| Compensation outside LPA or NCA of impact site and beyond neighbouring LPA or NCA. | 0.5        |

This multiplier does not apply to the calculations carried out here as no off-site areas were included.

## 2.6 River assessment

- 2.6.1 River units are calculated in the same manner as area and hedgerow units, combining distinctiveness, condition, connectivity and strategic significance. Several mapped watercourses are present within the site. These were all of an agricultural ditch character and professional judgement was used to determine the most appropriate way to classify and assess these areas. Details of these assessments is presented in section 3.

## 2.7 Calculation of gains or losses

- 2.7.1 The net change in biodiversity or hedgerow units on and off-site is calculated within the tool by subtracting the baseline units from the post-development units. The overall net change is the sum of the change in units on-site and off-site. The percentage net gain is then calculated by dividing this overall net change by the number of baseline units on the site, as shown in the equation below:

$$\text{overall percentage net gain} = \frac{\text{change in units on site} + \text{change in units off site}}{\text{baseline units on site}} \times 100$$

- 2.7.2 A positive value indicates a net gain has been made and a negative value indicates a net loss has been made.

## 2.8 Changes in broad habitat type calculations

- 2.8.1 The UK habitat classification system is hierarchical in structure, so specific habitat types can be grouped into broad habitat types. The changes in area and biodiversity units associated with each of these broad habitat types was calculated using the baseline and post-development data.

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## 2.9 Areas excluded from the assessment

- 2.9.1 The metric is not designed to assess impacts to habitats within statutory designated sites or “irreplaceable” habitats, as defined in Baker et al. (2019). There are no irreplaceable habitats, such as ancient woodland, or statutory designated sites present on the proposed development.

## 2.10 Assumptions and limitations

- 2.10.1 The following assumptions, were made to complete the assessment:

- Arcadis have used third party data as part of the assessments of the post-development and off-site habitats.
- Assumptions on the condition of the baseline habitats are inferred from existing data. No specific surveys or assessments were undertaken.
- The tool released by Natural England for assessing ecological connectivity was released in December 2019, but it was found to be non-functional. As such in the Biodiversity Metric 2.0 - Beta Test: Summary Consultation Response (Natural England, 2020) the decision was taken to fix connectivity at Low (x1 multiplier) for all habitats until the metric is next reviewed.
- Baseline data was largely collected in the format of a Phase 1 Habitat Survey, but a conversion was required to UK habitat classification typology to enter this data into the metric.

- 2.10.2** It is not considered that these assumptions introduce a level of uncertainty into the assessment that would affect the veracity of the assumptions.

### 3 BIODIVERSITY CHANGE RESULTING FROM EXISTING PLANS

#### 3.1 Baseline conditions and valuation

3.1.1 The Sizewell Link Road Site is approximately 101ha in area. This section describes each of the habitats listed on site, shown in Figure 1. Codes utilised in this section are those from the JNCC Phase 1 Habitat Survey Handbook (JNCC, 2010). **Table 9** details the UK habitat classification types used in the Defra Metric 2.0 and how they relate to the Phase 1 Habitat Types. Also presented are the valuations of the condition, ecological connectivity and strategic significance of each habitat type. The baseline currently delivers 240.96 biodiversity units for habitats. When data was entered into the tool, some of the habitat parcels were divided up for the purposes of data handling.

3.1.2 Hedgerows are assessed separately to habitats by the metric. **Table 10** follows the same format as **Table 9**, but details hedgerows, rather than areas of habitat. The baseline currently delivers 68.35 hedgerow units from 10.36km of hedgerows.

##### a) Changes to site boundary

3.1.3 A total of 40 relatively minor changes were made to the site boundary have been introduced since the previous Biodiversity Net Gain report (**Volume 6, Chapter 7 Annex 7-4 [APP-462]** of the **ES**). Each of these changes was assigned a reference number and is detailed in **Table 8**. A figure indicating the locations of these areas are attached in **APPENDIX A**:

**Table 8: Proposed changes to Sizewell link road site boundary**

| Reference no. | New area or removal of area | Baseline habitat                                                               | Post development habitat                                                             |
|---------------|-----------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| SLR 1/1       | New area                    | Includes more of an arable field and hedgerow that have already been assessed. | Additional hedge planting.<br><br>Rest of the area appears to be returned to arable. |
| SLR 1/2       | New area                    | Includes more of an arable field that has already been assessed.               | Creation of grassed areas, ponds, planting and a hedge.                              |

| Reference no. | New area or removal of area | Baseline habitat                                                                                                                                                           | Post development habitat                                              |
|---------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| SLR 1/3       | New area                    | Includes more of an arable field that has already been assessed.                                                                                                           | Creation of grassed areas, ponds, planting and hedge.                 |
| SLR 1/4       | New area                    | Includes more of an arable field that has already been assessed. Eastern tip of the new area includes a patch of trees/part of hedge that has not been previously surveyed | Returned to agricultural baseline.                                    |
| SLR 1/5       | New area                    | Includes more of an arable field.                                                                                                                                          | Appears to be returned to arable.                                     |
| SLR 1/6       | Land take adjustment        | Comprises part of an arable field that has already been assessed.                                                                                                          | Temporary contractor compound. Returned to arable land thereafter.    |
| SLR 2/1       | New area                    | Contains a section of railway, dense/continuous scrub, and arable land. Not previously surveyed but adjacent arable land, railway and scrub has.                           | No apparent changes: railway, dense/continuous scrub, and arable land |
| SLR 2/2       | New area                    | Comprises a tiny snippet of broadleaved woodland, not previously surveyed                                                                                                  | No apparent changes: broadleaved woodland                             |
| SLR 2/3       | New area                    | Comprises part of an arable field that has already been assessed.                                                                                                          | New attenuation basin, grassed area, planting and hedgerow            |
| SLR 2/4       | New area                    | Comprises part of an arable field that has already been assessed.                                                                                                          | New attenuation basin, grassed areas, planting and hedgerow           |

| Reference no. | New area or removal of area | Baseline habitat                                                                                                                                                                                                                                                                        | Post development habitat                                         |
|---------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| SLR 2/5       | New area                    | Mainly arable land with an area of broadleaved semi-natural woodland and a hedge. Some of the arable land and the hedge have been surveyed previously. Area of arable land and woodland not surveyed previously surveyed. Seems like continuation of surveyed arable land and woodland. | Area appears to be retained.                                     |
| SLR 2/6       | New area                    | Comprises part of an arable field that has already been assessed.                                                                                                                                                                                                                       | Appears to be returned to arable.                                |
| SLR 3/1       | New area                    | Comprises arable land and hedgerow. Not previously surveyed but continuation of previously surveyed habitats                                                                                                                                                                            | Grassed area and new hedge                                       |
| SLR 3/2       | New area                    | Previously surveyed defunct hedgerow and arable land.                                                                                                                                                                                                                                   | Appears to be returned to defunct hedgerow and arable land       |
| SLR 3/3       | New area                    | Broadleaved woodland previously surveyed plus an area of arable land not previously surveyed                                                                                                                                                                                            | Grassed area and hedgerow planting                               |
| SLR 3/4       | New area                    | Includes more of an arable field that has already been assessed.                                                                                                                                                                                                                        | Attenuation basin, grassed area, planting and hedgerow planting. |
| SLR 3/5       | New area                    | Includes more of an arable field that has already been assessed.                                                                                                                                                                                                                        | Attenuation basin, grassed area, planting and hedgerow planting. |

| Reference no. | New area or removal of area    | Baseline habitat                                                                                                       | Post development habitat                                         |
|---------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| SLR 3/6       | New area                       | Includes more of an arable field, dry ditch and hedge with trees (native species-rich) that has already been assessed. | Attenuation basin, grassed area, planting and hedgerow planting. |
| SLR 3/7       | Permanent land take adjustment | Comprises part of an arable field that has already been assessed.                                                      | Grassed area                                                     |
| SLR 3/8       | Permanent land take adjustment | Arable land and hedgerow with trees (native species-rich).                                                             | Appears to be returned to arable land and hedge.                 |
| SLR 3/9       | Removed area                   | Comprises part of an arable field that has already been assessed.                                                      | Arable land                                                      |
| SLR 4/1       | New area                       | Includes more of an arable field and hedgerow with trees (native species-rich) that have already been assessed.        | Attenuation basin, grassed area, planting and hedgerow planting. |
| SLR 4/2       | New area                       | Comprises part of an arable field that has already been assessed.                                                      | Grassed area                                                     |
| SLR 4/3       | New area                       | Arable land and hedgerow.                                                                                              | Grassed and hedgerow planting                                    |
| SLR 4/4       | New area                       | Comprises part of an arable field that has already been assessed.                                                      | Returned to arable.                                              |
| SLR 4/5       | New area                       | Arable land.                                                                                                           | Attenuation basin, grassed area, planting and hedgerow planting. |

| Reference no. | New area or removal of area | Baseline habitat                                                                                           | Post development habitat                                         |
|---------------|-----------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| SLR 4/6       | New area                    | Scattered scrub and a hedge.                                                                               | Grassed area and hedgerow planting                               |
| SLR 4/7       | New area                    | Part of arable field, previously surveyed                                                                  | Attenuation basin, grassed area, planting and hedgerow planting. |
| SLR 4/8       | New area                    | Arable land with some scrub on the edge. Scrub does not appear on Phase 1 map.                             | Returned to arable land with some additional hedgerow planting.  |
| SLR 4/9       | New area                    | Arable land. Surveyed for update.                                                                          | Attenuation basin, grassed area and planting                     |
| SLR 4/10      | Removed area                | Line of trees, classified as ' <i>broadleaved parkland – scattered</i> ' in the updated Phase 1.           | Strip of hedge/field margin retained                             |
| SLR 5/1       | New area                    | Arable land and hedge. Previously surveyed although hedge on the arial does not appear on the Phase 1 map. | Grassed area and hedgerow planting                               |
| SLR 5/2       | New areas                   | Arable land and hedge. Previously surveyed.                                                                | Grassed area and hedgerow planting                               |
| SLR 5/3       | New area                    | Arable land                                                                                                | Returned to arable land                                          |
| SLR 5/4       | New area                    | Arable land and semi-natural broadleaved woodland. Previously surveyed during update.                      | Seems to be returned to arable land and woodland                 |

| Reference no. | New area or removal of area | Baseline habitat                                                                 | Post development habitat                                         |
|---------------|-----------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------|
| SLR 5/5       | New area                    | Arable and defunct species-poor hedgerow, previously surveyed                    | Attenuation basin, grassed area, planting and hedgerow planting. |
| SLR 5/6       | Removed area                | Appears to comprise hedgerow/scrub.                                              | hedgerow/scrub retained                                          |
| SLR 6/1       | New area                    | Arable land. Previously surveyed                                                 | Attenuation basin, grassed area and hedgerow planting            |
| SLR 6/2       | New area                    | Arable land and hedgerow, previously surveyed                                    | Area seems to be reinstated with additional hedgerow planting    |
| SLR 6/3       | New area                    | includes a strip of native species-rich hedgerow with trees, previously surveyed | Grassed area                                                     |

b) Areas previously not surveyed

- 3.1.4 In the east of the site, there are areas that were not surveyed at the time of the initial BNG assessment. These areas were surveyed during Phase 1 surveys in 2020 (**Volume 6, Chapter 7 Annex 7-4 [APP-462]** of the **ES**). The baseline for these areas has been updated accordingly.

c) Habitat typology and condition

- 3.1.5 The following habitats are present on site:

xi. Broad-leaved plantation woodland

**Habitat Typology**

- 3.1.6 Several areas of broadleaved plantation woodland are present within the site. One of these is located just east of the railway, extending into the northern edge of the site. This woodland contains a tree canopy of Oak (*Quercus* sp.) and Wild Cherry

(*Prunus avium*). The ground flora is predominately Common Nettle (*Urtica dioica*) and Cleavers (*Galium aparine*). A second area is present in the north of the site. The tree canopy contains young to semi-mature Oak and Ash (*Fraxinus excelsior*). The shrub layer supports Hawthorn (*Crataegus monogyna*), Hazel (*Corylus avellana*) and Beech (*Fagus sylvatica*) and the ground flora is dominated by Common Ivy (*Hedera helix*) and Dog's Mercury (*Mercurialis perennis*). Due to changes to the red line boundary, a very small section (approximately 0.01ha) of broadleaved plantation woodland is also present within the site. A review of Magic and Satellite imagery determined that the woodland is broadleaved in character and was planted around 1999. These areas all align with the "Woodland and forest - Other woodland; broadleaved" typology.

### Condition

- 3.1.7 The habitats comprise mostly native species of similar age and height structures and are not considered to be in good condition. No criteria indicating a poor condition, such as non-native trees being dominant, were met. As such the habitat was assessed as being of moderate condition.

#### ii. Broad-leaved semi-natural woodland

### Habitat Typology

- 3.1.8 Several areas of broad-leaved semi-natural woodland are located throughout the site. They comprise overwhelmingly native species but species composition differs between the different blocks with several areas also containing low numbers of coniferous trees such as Scots Pine and Yew. As such, these areas align with the "Woodland and forest - Lowland mixed deciduous woodland" typology.

### Condition

- 3.1.9 The habitat comprised mostly native species, but did not contain an average of more than 3 native tree and shrub species within a 10m radius. No criteria indicating a poor condition, such as non-native trees being dominant, were met. As such the habitat is assessed as being of moderate condition.

#### iii. Scattered broad-leaved trees

### Habitat Typology

- 3.1.10 Several scattered broad-leaved trees are present on site. Species include Ash, Pedunculate Oak (*Quercus robur*), Elm (*Ulmus* sp.) and Field Maple (*Acer campestre*). The "Woodland and forest - Wood-pasture and parkland" typology was applied.

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### Condition

- 3.1.11 The condition is assessed as being Good for mature trees (mostly Pedunculate Oaks) and as moderate for younger and semi-mature trees.

iv. Scattered coniferous trees

### Habitat Typology

- 3.1.12 Four semi-mature Scots Pines (*Pinus sylvestris*) are located at the intersection of Leiston Road and Moat Road. As guided by BM 2.0, this habitat was assessed as aligning with the “Woodland and forest - Other coniferous woodland” typology.

### Condition

- 3.1.13 The scattered trees do not constitute woodland and are semi-mature. As such poor condition was applied.

v. Dense scrub

### Habitat Typology

- 3.1.14 The areas of dense scrub contained a mixture of woody species, mainly Hawthorn, Blackthorn (*Prunus spinosa*) and Bramble (*Rubus fruticosus* agg.). The “Heathland and shrub – mixed scrub” typology was applied.

### Condition

- 3.1.15 The exact composition of the dense scrub areas on site varies but no areas contain at least three woody species with none of more than 75% cover. Similarly, they do not contain many clearings and glades. As such fairly poor condition was applied.

vi. Scattered scrub

### Habitat Typology

- 3.1.16 The scattered scrub mainly comprised Hawthorn, Blackthorn, Bramble and Gorse (*Ulex europaeus*). The “Heathland and shrub – mixed shrub” typology was applied.

### Condition

- 3.1.17 Scattered scrub was assessed as a part of the habitat within which it is located e.g. grassland or ruderal habitat and the condition of scattered scrub as an independent habitat type was not assessed.

vii. Improved grassland

Habitat Typology

- 3.1.18 The site contains several small areas of agricultural improved grassland usually dominated by a single grass species. As such the habitat aligns with the “Grassland - Modified grassland” typology.

Condition

- 3.1.19 Improved grasslands with a limited species richness are considered to be in poor condition.

viii. Poor Semi-improved grassland

Habitat Typology

- 3.1.20 A small area of poor semi-improved grassland was present on site. The “Grassland - Modified grassland” typology was applied.

Condition

- 3.1.21 The area was species-poor and in agricultural use. The semi-improved character aligns with the moderate condition description within the condition sheet.

ix. Neutral semi-improved grassland

Habitat Typology

- 3.1.22 The site contained one area of neutral semi-improved grassland just south of Pretty Road. The grassland had relatively good botanical diversity comprising several species of grass and occasional flower species. Timothy (*Phleum pratense*) was the dominant grass species, with occasional Cock’s-foot (*Dactylis glomerata*), Rough Meadow-grass (*Poa trivialis*) and Crested Dog’s-tail (*Cynosurus cristatus*). Forb species recorded included Common Fleabane (*Pulicaria dysenterica*) and Bristly Oxtongue (*Helminthotheca echioides*). The habitat was not sufficiently species-rich or diverse to align with a more distinctive typology than “Grassland - Modified grassland”.

Condition

- 3.1.23 Semi-improved grassland with a species composition as described is considered to be of moderate condition.

x. Amenity grassland

**Habitat Typology**

- 3.1.24 Several small areas of amenity grassland are present around several buildings in the east of the site. These areas clearly align with the ‘Urban - Amenity grassland’ typology.

**Condition**

- 3.1.25 Due to the low diversity and amenity character this habitat typology is assessed as being of poor condition.

xi. Tall ruderal

**Habitat Typology**

- 3.1.26 This habitat comprised areas of tall ruderal, mainly composed of common species such as Hogweed (*Heracleum sphondylium*) and Common Nettle. As such these areas align with the “Sparsely vegetated land - Ruderal/Ephemeral” typology.

**Condition**

- 3.1.27 Several areas of ruderal vegetation comprising mostly nettles and other common tall herbs indicative of nitrogen-rich soils were located throughout the area and were assessed as poor condition.
- 3.1.28 The area around the quarry north of Pretty Road comprised ruderal habitat of relatively high biodiversity value with high plant diversity, good numbers of bees, butterflies and other pollinators and good habitat for solitary bees and wasps [\[AS-036\]](#)). Such habitats are considered to be of moderate condition.

xii. Arable

**Habitat Typology**

- 3.1.29 This habitat comprises the areas of arable land. Crops include potatoes, onions. As such, these areas align with the “Cropland – Non-cereal crops” typology. Cereal and non-cereal crops are assessed in the same way within the BM 2.0, so differentiation between these two typologies is not material, especially given the highly fluid nature of farming.

**Condition**

- 3.1.30 This habitat typology has a pre-defined condition set to N/A – Agricultural.

xiii. Hardstanding

**Habitat Typology**

- 3.1.31 This typology covers the existing roads and areas of hardstanding across the site. As such, these areas align with the “Urban - Developed land; sealed surface” typology.

**Condition**

- 3.1.32 This habitat typology has a pre-defined condition set to N/A – Other.

xiv. Railway line

**Habitat Typology**

- 3.1.33 An area of railway line is present within the site. This area aligns with the “Urban - Artificial unvegetated, unsealed surface” typology.

**Condition**

- 3.1.34 This habitat typology has a pre-defined condition set to N/A – Other.

xv. Standing water

**Habitat Typology**

- 3.1.35 The standing water habitat refers to a series of ponds throughout the site. Those that were found to support great crested newts are assessed as aligning with the ‘Lakes – Ponds (priority habitat)’ typology, while those that did not were assessed as aligning with the ‘Lakes - Ponds (Non- Priority Habitat)’ typology.

**Condition**

- 3.1.36 The ponds were mostly located within agricultural land and aligned with the moderate condition.

xvi. Watercourses

- 3.1.37 The Middleton Watercourse is a designated Main River which flows parallel to Fordley Road where it passes through the site, between an arable field and a road. However, during the phase 1 survey, it was found to be dry and significantly altered resulting in a ditch-like character. It was therefore considered appropriate to assess this feature as within the ‘Lakes – Ditches’ typology. The condition sheet guides the assessment of this ditch as being of poor condition, as it dries out, there is intensive

land use directly adjacent to the water body and few of the condition assessment criteria are passed.

- 3.1.38 The Theberton Watercourse is a designated Main River which flows in a north-easterly direction through the eastern section of the site. This watercourse lies within an agricultural landscape and the section within the site lies adjacent to a hedge. The straightening and management of the watercourse has resulted in the character being significantly altered resulting in a ditch-like character. It was therefore considered appropriate to assess this feature as within the 'Lakes – Ditches' typology. A precautionary condition of moderate was assigned.
- 3.1.39 An unnamed watercourse is present within the site which passes through the site to the east of Fordley Road. During the phase 1 survey, it was found to be a dry agricultural ditch. It was therefore considered appropriate to assess this feature as within the 'Lakes – Ditches' typology. The condition sheet guides the assessment of this ditch as being of poor condition, as it dries out, there is intensive land use directly adjacent to the water body and few of the condition assessment criteria are passed.
- 3.1.40 An unnamed watercourse is present within the site between Hawthorn Road and Pretty Road. During the phase 1 survey, it was found to be a dry agricultural ditch. It was therefore considered appropriate to assess this feature as within the 'Lakes – Ditches' typology. The condition sheet guides the assessment of this ditch as being of poor condition, as it dries out, there is intensive land use directly adjacent to the water body and few of the condition assessment criteria are passed.
- 3.1.41 Several other ditches are present within the site. These were also assessed as aligning with the "Lakes – Ditches". A width of 1m was typical for these ditches, so this was assumed for the entire length. The dry ditches are located in agricultural areas and in poor condition. The ditches that contained water contained some wetland plant species such as Water-plantain (*Alisma plantago-aquatica*) and were assigned as being in moderate condition.

b) Hedgerow typology and condition

i. Intact native species-rich hedge

**Habitat Typology**

- 3.1.42 Intact native species-rich hedgerows were classified under the "Native Species Rich Hedgerow", "Native species Rich Hedgerow – Associated with bank or ditch" and "Native Species Rich Hedgerow with trees - Associated with bank or ditch" typologies based in the extra information supplied in **Volume 2, Chapter 14** of the ES [[AS-033](#)].

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### Condition

- 3.1.43 These hedgerows are species-rich and sufficiently wide and high to apply good condition.

ii. Species-poor intact hedge

### Habitat Typology

- 3.1.44 Species-poor intact hedgerows were classified under the “Native Hedgerow”, “Native Hedgerow with trees - Associated with bank or ditch” and “Native Hedgerow - Associated with bank or ditch” typologies based in the extra information supplied in **Volume 2, Chapter 14** of the ES [\[AS-033\]](#).

### Condition

- 3.1.45 The “native hedgerows” aligned with moderate and good condition, the “native hedgerow with trees - Associated with bank or ditch” aligned with moderate condition and “Native Hedgerow - Associated with bank or ditch” aligned with moderate condition.

iii. Native species-rich defunct hedge

### Habitat Typology

- 3.1.46 This defunct hedgerow best aligns with the “Native Hedgerow” typology.

### Condition

- 3.1.47 The hedgerow is defunct and poor condition was applied.

iv. Species-poor defunct hedge

### Habitat Typology

- 3.1.48 These hedges aligned with the “native Hedgerow”, “Native Hedgerow with trees” and “Native Hedgerow with trees – Associated with bank or ditch” typologies.

### Condition

- 3.1.49 The hedgerows were defunct and species-poor and therefore poor condition was applied.

v. Native species-rich hedge with trees

**Habitat Typology**

- 3.1.50 These stretches of hedge were classified under the “Native Species Rich Hedgerow with trees - Associated with bank or ditch” typology. Another stretch of hedge was not associated with a bank or ditch and was classified under the “Native Species Rich Hedgerow with trees” typology.

**Condition**

- 3.1.51 Stretches of “Native Species Rich Hedgerow with trees - Associated with bank or ditch” were in good condition and one was in moderate condition. For the “Native Species Rich Hedgerow with trees” moderate condition was selected.

vi. Species-poor hedge with trees

**Habitat Typology**

- 3.1.52 These stretches of hedge are classified as “Native Hedgerow with trees” and “Native Hedgerow with trees - Associated with bank or ditch”.

**Condition**

- 3.1.53 The former typology was in good condition and the latter was in moderate condition.

b) Strategic significance

- 3.1.54 No habitats within the scheme boundary fall within a statutory or non-statutory designated site for nature conservation and therefore no parcels receive a significance score of ‘Within area formally identified in local strategy’. Several habitat types are regarded as a priority habitats in local plans and thus receive a score of ‘Location ecologically desirable but not in local strategy’. These habitats are ‘Woodland and forest- lowland mixed deciduous woodland’, ‘Lakes – ponds (priority habitat)’ and all hedgerow habitats. All other habitat types receive a strategic significance score of ‘Area/compensation not in local strategy/ no local strategy’.

**Table 9: Baseline biodiversity units for areas of habitat within the Sizewell C Sizewell Link Road, detailing the Phase 1 habitat and UK habitat conversions**

| Phase 1 habitat type              | UK habs/ broad habitat | UK habs/habitat type                                   | Area (ha) | Distinctiveness | Condition | Connectivity | Strategic significance                                     | Habitat units |
|-----------------------------------|------------------------|--------------------------------------------------------|-----------|-----------------|-----------|--------------|------------------------------------------------------------|---------------|
| Broadleaved plantation woodland   | Woodland and forest    | Woodland and forest – Other woodland; broadleaved      | 1.16      | Medium          | Moderate  | Low          | Area/compensation not in local strategy/ no local strategy | 9.28          |
| Broadleaved semi-natural woodland | Woodland and forest    | Woodland and forest – Lowland mixed deciduous woodland | 1.08      | High            | Moderate  | Low          | Location ecologically desirable but not in local strategy  | 14.26         |
| Scattered broadleaved trees       | Woodland and forest    | Woodland and forest - Wood-pasture and parkland        | 0.32      | High            | Moderate  | Low          | Area/compensation not in local strategy/ no local strategy | 3.84          |
| Scattered broadleaved trees       | Woodland and forest    | Woodland and forest - Wood-pasture and parkland        | 0.12      | High            | Good      | Low          | Area/compensation not in local strategy/ no local strategy | 2.16          |
| Scattered coniferous trees        | Woodland and forest    | Woodland and forest - Other coniferous woodland        | 0.01      | Low             | Moderate  | Low          | Area/compensation not in local strategy/ no local strategy | 0.02          |
| Dense scrub                       | Heathland and shrub    | Heathland and shrub – Mixed scrub                      | 0.73      | Medium          | Moderate  | Low          | Area/compensation not in local strategy/ no local strategy | 5.84          |

| Phase 1 habitat type            | UK habs/ broad habitat  | UK habs/habitat type                        | Area (ha) | Distinctiveness | Condition          | Connectivity | Strategic significance                                     | Habitat units |
|---------------------------------|-------------------------|---------------------------------------------|-----------|-----------------|--------------------|--------------|------------------------------------------------------------|---------------|
| Improved grassland              | Grassland               | Grassland - Modified grassland              | 1.71      | Low             | Poor               | Low          | Area/compensation not in local strategy/ no local strategy | 3.42          |
| Poor semi-improved grassland    | Grassland               | Grassland - Modified grassland              | 0.80      | Low             | Moderate           | Low          | Area/compensation not in local strategy/ no local strategy | 3.20          |
| Neutral semi-improved grassland | Grassland               | Grassland - Modified grassland              | 0.51      | Low             | Moderate           | Low          | Area/compensation not in local strategy/ no local strategy | 2.04          |
| Amenity grassland               | Urban                   | Amenity grassland                           | 0.03      | Low             | Poor               | Low          | Area/compensation not in local strategy/ no local strategy | 0.06          |
| Tall ruderal                    | Sparsely vegetated land | Sparsely vegetated land - Ruderal/Ephemeral | 0.52      | Low             | Poor               | Low          | Area/compensation not in local strategy/ no local strategy | 1.04          |
| Arable                          | Cropland                | Cropland – Cereal crops                     | 96.55     | Low             | N/A - Agricultural | Low          | Area/compensation not in local strategy/ no local strategy | 193.10        |
| Hardstanding                    | Urban                   | Urban - Developed land; sealed surface      | 4.96      | V. Low          | N/A - Other        | Low          | Area/compensation not in local strategy/ no local strategy | 0.00          |
| Railway line                    | Urban                   | Urban – Vacant/derelict land/bare ground    | 0.15      | Low             | Poor               | Low          | Area/compensation not in local strategy/ no local strategy | 0.2           |

| Phase 1 habitat type | UK habs/ broad habitat | UK habs/habitat type                 | Area (ha)     | Distinctiveness | Condition | Connectivity | Strategic significance                                     | Habitat units |
|----------------------|------------------------|--------------------------------------|---------------|-----------------|-----------|--------------|------------------------------------------------------------|---------------|
| Standing water       | Lakes                  | Lakes - Ponds (Non-priority Habitat) | 0.04          | High            | Moderate  | Low          | Area/compensation not in local strategy/ no local strategy | 0.48          |
| Standing water       | Lakes                  | Lakes - Ponds (Priority Habitat)     | 0.11          | High            | Moderate  | Low          | Area/compensation not in local strategy/ no local strategy | 1.45          |
| Ditch                | Lakes                  | Lakes - Ditches                      | 0.17          | Medium          | Poor      | Low          | Area/compensation not in local strategy/ no local strategy | 0.68          |
| Ditch                | Lakes                  | Lakes - Ditches                      | 0.01          | Medium          | Moderate  | Low          | Area/compensation not in local strategy/ no local strategy | 0.09          |
| <b>Totals</b>        |                        |                                      | <b>108.98</b> |                 |           |              |                                                            | <b>240.96</b> |

**Table 10: Baseline biodiversity units for hedgerows within Sizewell C Sizewell Link Road, detailing the Phase 1 habitat and UK habitat conversions**

| Phase 1 habitat type                                             | Hedgerow type   | Length (km) | Distinctiveness | Condition | Ecological connectivity | Strategic significance                                     | Hedgerow units |
|------------------------------------------------------------------|-----------------|-------------|-----------------|-----------|-------------------------|------------------------------------------------------------|----------------|
| Native species-rich defunct hedge;<br>Species poor defunct hedge | Native hedgerow | 0.262       | Low             | Poor      | Low                     | Area/compensation not in local strategy/ no local strategy | 0.58           |
| Species-poor intact hedge                                        | Native hedgerow | 3.461       | Low             | Moderate  | Low                     | Area/compensation not in local strategy/ no local strategy | 15.23          |

| Phase 1 habitat type                 | Hedgerow type                                                           | Length (km) | Distinctiveness | Condition | Ecological connectivity | Strategic significance                                     | Hedgerow units |
|--------------------------------------|-------------------------------------------------------------------------|-------------|-----------------|-----------|-------------------------|------------------------------------------------------------|----------------|
| Species poor hedge with trees        | Native hedgerow with trees                                              | 0.929       | Low             | Moderate  | Low                     | Area/compensation not in local strategy/ no local strategy | 4.09           |
| Species poor intact hedge            | Native hedgerow with trees – Associated with bank or ditch              | 0.916       | Medium          | Poor      | Low                     | Area/compensation not in local strategy/ no local strategy | 4.03           |
| Intact native species-rich hedge     | Native species rich hedgerow                                            | 0.771       | Medium          | Moderate  | Low                     | Area/compensation not in local strategy/ no local strategy | 6.78           |
| Native species-rich hedge with trees | Native species rich hedgerow with trees                                 | 3.511       | Medium          | Moderate  | Low                     | Area/compensation not in local strategy/ no local strategy | 30.90          |
| Native species rich hedge with trees | Native species rich hedgerow with trees – Associated with bank or ditch | 0.511       | High            | Moderate  | Low                     | Area/compensation not in local strategy/ no local strategy | 6.75           |

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**NOT PROTECTIVELY MARKED**

| Phase 1 habitat type | Hedgerow type | Length (km)  | Distinctiveness | Condition | Ecological connectivity | Strategic significance | Hedgerow units |
|----------------------|---------------|--------------|-----------------|-----------|-------------------------|------------------------|----------------|
|                      | <b>Total</b>  | <b>10.36</b> |                 |           |                         |                        | <b>68.35</b>   |

**NOT PROTECTIVELY MARKED**

## 3.2 Post-construction habitat conditions and valuation

3.2.1 The illustrative masterplan, shown in Figures 6.2.2 – 6.2.8, was used as the basis for these calculations.

3.2.2 The sources used to assess the biodiversity value of each of these habitat compartments are presented in Section 2.4.

3.2.3 The on-site post development biodiversity units total 350.88, representing an increase of 109.92 biodiversity units from the baseline 240.96 units. This is a 45.62% increase.

3.2.4 A total of 87.29 hedgerow units would be delivered from 16.98km of hedgerows post-development from a baseline of 68.35 hedgerow units resulting in an increase of 18.94 units. This is a 27.71% increase. This is partly the result of the length of hedgerows on the site increasing from 10.36km to 17.62km.

### a) Retained habitats

3.2.5 The following habitats will be either fully or partially retained within the scheme.

#### i. Woodland and forest – Other woodland; broadleaved

3.2.6 Some areas or parts of areas of this woodland type will be retained. These areas were assigned moderate condition.

#### ii. Woodland and forest – Lowland mixed deciduous woodland

3.2.7 Some areas or parts of areas of this woodland type will be retained. These areas were assigned moderate condition.

#### iii. Woodland and forest – Wood-pasture and parkland

3.2.8 At least 10 scattered broad-leaved trees will be retained. Condition was assessed as good for mature trees and as moderate for younger and semi-mature trees.

#### iv. Heathland and shrub – Mixed scrub

3.2.9 Several areas of scrub, including stretches of scrub along the railway are largely retained. Moderate condition was applied.

#### v. Urban – Artificial unvegetated, unsealed surface

3.2.10 The area of railway is retained. This habitat has a pre-defined condition of N/A - Other.

vi. Lakes – Pond (priority habitat)

- 3.2.11 Three ponds will be retained. These ponds were of moderate condition.

vii. Lakes – ditches

- 3.2.12 Several ditches of poor and moderate condition are retained.

b) Reinstated habitats

- 3.2.13 Temporary works areas will be present along the length of the road along with separate areas, such as those for compounds and storage. Post development, the temporary works areas will be returned to their baseline state. This section details the habitats present in these areas.

i. Woodland and Forest – Other woodland; broadleaved

- 3.2.14 Areas of plantation broadleaved woodland will be reinstated in areas where they are temporarily lost. The baseline condition of moderate will be targeted.

ii. Woodland and Forest – Lowland mixed deciduous woodland

- 3.2.15 Areas of lowland mixed deciduous woodland will be lost to temporary works areas and this habitat will be reinstated post-development. The baseline condition of moderate will be targeted.

iii. Heathland and shrub – Mixed scrub

- 3.2.16 Several areas of dense woody scrub will be lost to temporary works areas and this habitat will be reinstated post-development. The baseline condition of moderate will be targeted.

iv. Grassland – Modified grassland

- 3.2.17 This typology includes certain sections of pastures and other agricultural grasslands that will be lost to temporary works areas. These areas will target the same typology and condition as in the baseline state; i.e. poor condition for those areas assessed as improved grassland in the baseline and moderate condition for those areas assessed as poor semi-improved grassland in the baseline.

v. Urban – Amenity grassland

- 3.2.18 A small area of amenity grassland will be lost and reinstated. This area will target the same typology and condition as in the baseline state: i.e. poor.

vi. Sparsely vegetated land – Ruderal/Ephemeral

- 3.2.19 Small areas of ruderal vegetation are likely lost to the temporary works areas. These habitats will not be actively recreated, but it is likely that they will develop in the long term within an agricultural landscape, for example at field edges. To reflect this, this typology is included in the post-development state. Conditions are assumed to be the same as the baseline conditions: i.e. poor and moderate.

vii. Cropland – Non-cereal crops

- 3.2.20 Areas of arable land will be impacted during development and certain parts will be returned to agricultural use post-development. This habitat has a pre-defined condition of “N/A – Agricultural”.

viii. Lakes – Ponds (Priority Habitat)

- 3.2.21 Three ponds will be lost and reinstated after development. The baseline typologies and conditions will be targeted.

c) Created habitats

i. Proposed planting

- 3.2.22 New areas of woodland would be established through planting. The new woodlands would buffer and link existing areas of woodland within the site, as well as provide visual screening, and would be predominantly native broadleaved with a small component of mixed woodland (to increase climate change resilience). It would have structural and species diversity, and management would be aimed at enhancing biodiversity value. These areas are largely relatively small areas adjacent to the road. As such, it is unlikely that a more distinctive typology than ‘Other woodland; broadleaved’ is achievable. As these areas will be managed for biodiversity value, good condition is considered to be achievable.

- 3.2.23 The proposed planting typology includes scattered trees around infiltration basins and junctions in order to provide a transition between broadleaved woodland and grassland. The trees would be native broadleaved, with species diversity, and management would be aimed at enhancing biodiversity value. These trees are likely to align most closely with the ‘Wood-pasture and parkland’ typology. While these areas of trees within grassland will be managed for biodiversity purposes, a precautionary approach was taken and moderate condition was assumed.

ii. Grassed embankments/cuttings

- 3.2.24 A precautionary assessment was taken to the assessment of grassed embankments/cuttings. As a worst-case scenario, it is assumed that these areas will

be heavily managed and short mown and therefore poor condition modified grassland is predicted.

### iii. Grassed areas

- 3.2.25 This typology describes the areas on site seeded to target species-rich neutral grassland, such as around the attenuation basins. There would be different end use requirements dependant on specific locations of the grassland e.g. around infiltration basins and swales or at created ponds. The grassland would comprise a native species mix including the following grass species: Crested Dog's-tail, Quaking-grass (*Briza media*), Sweet Vernal-grass (*Anthoxanthum odoratum*), Yellow Oat-grass (*Trisetum flavescens*), Red Fescue (*Festuca rubra*) and Common Bent (*Agrostis capillaris*). Forb species would include the following: Common Knapweed (*Centaurea nigra*) Oxeye Daisy (*Leucanthemum vulgare*), Common Bird's-foot-trefoil (*Lotus corniculatus*), Lady's Bedstraw (*Galium verum*), Common Sorrel (*Rumex acetosa*), Meadow Vetchling (*Lathyrus pratensis*), Meadow Buttercup (*Ranunculus acris*), Ribwort Plantain (*Plantago lanceolata*), Cowslip (*Primula veris*) and Cat's-ear (*Hypochaeris radicata*). These areas are expected to align with the 'Other neutral grassland' typology. Good condition is considered to be achievable through positive management of these areas.

### iv. Hardstanding

- 3.2.26 This typology includes areas of hardstanding, including the road itself, pumping station and hardstanding footpaths (e.g. not those through fields). These areas are predicted to align with the 'Developed land; sealed surface'. This typology has a pre-defined condition of "N/A – Other". As hardstanding returns no biodiversity units, it is assumed that all hardstanding will be lost and replaced, for ease of calculation.

### v. Tracks

- 3.2.27 Several unsurfaced tracks are proposed. These are expected to be bare ground areas. These are expected to be areas of bare earth. As such, they are predicted to align with the 'Vacant/derelict land/ bareground' typology. They are expected to fail all of the condition criteria and therefore are predicted to be of poor condition.

### vi. Infiltration basin

- 3.2.28 A series of infiltration basins will be created along the road. These are expected to align with the "Urban - sustainable urban drainage feature" typology. This is predicted to achieve a condition score of good as it will be planted and managed with ecological requirements in mind and is likely to be a good example of this kind of habitat in a more natural context than this typology is normally found. Swales

- 3.2.29 'Bioswales' will be created along the much of the road. Targeting moderate condition is considered to be appropriate, balancing ambitious targets while remaining realistic given the drainage element of these areas is the overriding priority.

vii. Ponds

- 3.2.30 Approximately 13 new wildlife-friendly ponds will be created on site for net gain purposes and for great crested newts. A precautionary approach has been taken, by which it is assumed that those ponds for great crested newts will be of priority habitat quality, but those for more general biodiversity benefit will not. The typologies 'Lakes -Ponds (priority habitat)' and 'Lakes – Ponds (non-priority habitat)' were applied respectively. It is expected that the ponds created and managed primarily for biodiversity purposes will achieve good condition, whereas a precautionary assessment of moderate is predicted for ponds constructed and managed primarily for great crested newts. Key condition criteria related to the presence of native species, absence of invasive species, allowance for water levels to fluctuate and water quality are expected to be met.

d) Created Hedgerows

i. Proposed hedgerow

- 3.2.31 Hedges are proposed within the soft estate along the edges of the site and will contain native species and be species rich. It is assumed that the hedges will be managed to allow some emergent trees to become established. The majority of these hedges are located adjacent to a bioswale and are therefore associated with a bank or ditch. These are predicted to align with the 'Native Species Rich Hedgerow with trees - Associated with bank or ditch' typology. Those not adjacent to such a bioswale are predicted to align with the 'Native Species Rich Hedgerow with trees' typology.
- 3.2.32 Many of these hedges will border agricultural land, so a precautionary approach was taken to predicted condition of these two hedge typologies. Targeting moderate condition is considered appropriate, balancing attainable targets while remaining realistic.

e) Strategic significance

- 3.2.33 The strategic significance is assessed as in the baseline. No habitats within the scheme boundary fall within a statutory or non-statutory designated site for nature conservation and therefore no parcels receive a significance score of 'Within area formally identified in local strategy'. Several habitat types are regarded as a priority habitats in local plans and thus receive a score of 'Location ecologically desirable but not in local strategy'. These habitats are 'Woodland and forest- lowland mixed deciduous woodland', 'Lakes – Ponds (Priority Habitat)' and all hedgerow habitats.

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All other habitat types receive a strategic significance score of 'Area/compensation not in local strategy/ no local strategy'.

**Table 11: Biodiversity units for Sizewell C Sizewell Link Road from habitats post-development**

| Habitat type*                            | UK habs/<br>broad<br>habitat | UK<br>habs/habitat<br>type             | Area (ha) | Habitat<br>scenario for<br>creation | Distinctiven<br>ess | Condition | Ecological<br>connectivity | Strategic<br>significance                                               | Time to<br>target<br>condition | Difficulty | Biodiversity<br>units |
|------------------------------------------|------------------------------|----------------------------------------|-----------|-------------------------------------|---------------------|-----------|----------------------------|-------------------------------------------------------------------------|--------------------------------|------------|-----------------------|
| Plantation<br>woodland                   | Woodland and<br>forest       | Other<br>woodland;<br>broadleaved      | 0.51      | Retained                            | Medium              | Moderate  | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | N/A                            | N/A        | 4.08                  |
| Semi-natural<br>broad-leaved<br>woodland | Woodland and<br>forest       | Lowland mixed<br>deciduous<br>woodland | 0.23      | Retained                            | High                | Moderate  | Low                        | Location<br>ecologically<br>desirable but<br>not in local<br>strategy   | N/A                            | N/A        | 3.04                  |
| Scattered<br>broadleaved<br>trees        | Woodland and<br>forest       | Wood-pasture<br>and parkland           | 0.04      | Retained                            | High                | Moderate  | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | N/A                            | N/A        | 0.48                  |
| Scattered<br>broadleaved<br>trees        | Woodland and<br>forest       | Wood-pasture<br>and parkland           | 0.05      | Retained                            | High                | Good      | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | N/A                            | N/A        | 0.90                  |

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| Habitat type*  | UK habs/<br>broad<br>habitat | UK<br>habs/habitat<br>type                        | Area (ha) | Habitat<br>scenario for<br>creation | Distinctiven<br>ess | Condition   | Ecological<br>connectivity | Strategic<br>significance                                               | Time to<br>target<br>condition | Difficulty | Biodiversity<br>units |
|----------------|------------------------------|---------------------------------------------------|-----------|-------------------------------------|---------------------|-------------|----------------------------|-------------------------------------------------------------------------|--------------------------------|------------|-----------------------|
| Dense scrub    | Heathland and<br>shrub       | Mixed scrub                                       | 0.36      | Retained                            | Medium              | Moderate    | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | N/A                            | N/A        | 2.88                  |
| Railway        | Urban                        | Artificial<br>unvegetated,<br>unsealed<br>surface | 0.15      | Retained                            | V. Low              | Other – N/A | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | N/A                            | N/A        | 0.00                  |
| Standing water | Lakes                        | Pond (priority<br>habitat)                        | 0.06      | Retained                            | High                | Moderate    | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | N/A                            | N/A        | 0.79                  |
| Watercourses   | Lakes                        | Ditches                                           | 0.14      | Retained                            | Medium              | Poor        | Low                        | Location<br>ecologically<br>desirable but<br>not in local<br>strategy   | N/A                            | N/A        | 0.56                  |
| Watercourses   | Lakes                        | Ditches                                           | 0.01      | Retained                            | Medium              | Moderate    | Low                        | Location<br>ecologically<br>desirable but                               | N/A                            | N/A        | 0.09                  |

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| Habitat type*                           | UK habs/<br>broad<br>habitat | UK<br>habs/habitat<br>type             | Area (ha) | Habitat<br>scenario for<br>creation | Distinctiven<br>ess | Condition | Ecological<br>connectivity | Strategic<br>significance                                               | Time to<br>target<br>condition | Difficulty | Biodiversity<br>units |
|-----------------------------------------|------------------------------|----------------------------------------|-----------|-------------------------------------|---------------------|-----------|----------------------------|-------------------------------------------------------------------------|--------------------------------|------------|-----------------------|
|                                         |                              |                                        |           |                                     |                     |           |                            | not in local<br>strategy                                                |                                |            |                       |
| Plantation<br>woodland                  | Woodland and<br>forest       | Other<br>woodland;<br>broadleaved      | 0.06      | Reinstated                          | Medium              | Moderate  | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 30                             | Medium     | 0.11                  |
| Semi-natural<br>broadleaved<br>woodland | Woodland and<br>Forest       | Lowland mixed<br>deciduous<br>woodland | 0.2       | Reinstated                          | High                | Moderate  | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 32+                            | High       | 0.28                  |
| Dense scrub                             | Heathland and<br>shrub       | Mixed                                  | 0.05      | Reinstated                          | Moderate            | Low       | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 3                              | Low        | 0.36                  |
| Improved<br>grassland                   | Grassland                    | Modified<br>grassland                  | 0.49      | Reinstated                          | Low                 | Poor      | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 1                              | Low        | 0.95                  |

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| Habitat type*                        | UK habs/<br>broad<br>habitat | UK<br>habs/habitat<br>type | Area (ha) | Habitat<br>scenario for<br>creation | Distinctiven<br>ess | Condition          | Ecological<br>connectivity | Strategic<br>significance                                     | Time to<br>target<br>condition | Difficulty | Biodiversity<br>units |
|--------------------------------------|------------------------------|----------------------------|-----------|-------------------------------------|---------------------|--------------------|----------------------------|---------------------------------------------------------------|--------------------------------|------------|-----------------------|
| Neutral semi-improved grassland      | Grassland                    | Modified grassland         | 0.28      | Reinstated                          | Low                 | Moderate           | Low                        | Area/compensation not in local strategy/<br>no local strategy | 10                             | Low        | 0.78                  |
| Species-poor semi-improved grassland | Grassland                    | Modified grassland         | 0.35      | Reinstated                          | Low                 | Moderate           | Low                        | Area/compensation not in local strategy/<br>no local strategy | 10                             | Low        | 0.98                  |
| Amenity grassland                    | Urban                        | Amenity grassland          | 0.01      | Reinstated                          | Low                 | Poor               | Low                        | Area/compensation not in local strategy/<br>no local strategy | 1                              | Low        | 0.02                  |
| Tall ruderal                         | Sparsely vegetated land      | Ruderal/Ephe meral         | 0.2       | Reinstated                          | Low                 | Poor               | Low                        | Area/compensation not in local strategy/<br>no local strategy | 1                              | Low        | 0.39                  |
| Arable                               | Cropland                     | Cereal crops               | 27.31     | Reinstated                          | Low                 | N/A - Agricultural | Low                        | Area/compensation not in local strategy/                      | 1                              | Low        | 52.71                 |

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| Habitat type*        | UK habs/<br>broad<br>habitat | UK<br>habs/habitat<br>type        | Area (ha) | Habitat<br>scenario for<br>creation | Distinctiven<br>ess | Condition | Ecological<br>connectivity | Strategic<br>significance                                               | Time to<br>target<br>condition | Difficulty | Biodiversity<br>units |
|----------------------|------------------------------|-----------------------------------|-----------|-------------------------------------|---------------------|-----------|----------------------------|-------------------------------------------------------------------------|--------------------------------|------------|-----------------------|
|                      |                              |                                   |           |                                     |                     |           |                            | no local<br>strategy                                                    |                                |            |                       |
| ponds                | Lakes                        | Ponds (Non-<br>priority habitat)  | 0.01      | Reinstated                          | High                | Moderate  | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 3                              | Low        | 0.11                  |
| Ponds                | Lakes                        | Ponds (Priority<br>habitat)       | 0.05      | Reinstated                          | High                | Moderate  | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 5                              | Medium     | 0.37                  |
| Proposed<br>planting | Woodland and<br>forest       | Other<br>woodland;<br>broadleaved | 12.68     | Created                             | Medium              | Good      | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 32+                            | Medium     | 32.60                 |
| Proposed<br>planting | Woodland and<br>forest       | Wood-pasture<br>and Parkland      | 0.32      | Created                             | High                | Moderate  | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 32+                            | V. high    | 0.12                  |

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| Habitat type*                       | UK habs/<br>broad<br>habitat | UK<br>habs/habitat<br>type               | Area (ha) | Habitat<br>scenario for<br>creation | Distinctiven<br>ess | Condition   | Ecological<br>connectivity | Strategic<br>significance                                               | Time to<br>target<br>condition | Difficulty | Biodiversity<br>units |
|-------------------------------------|------------------------------|------------------------------------------|-----------|-------------------------------------|---------------------|-------------|----------------------------|-------------------------------------------------------------------------|--------------------------------|------------|-----------------------|
| Grassed<br>embankments/<br>cuttings | Grassland                    | Modified<br>grassland                    | 16.61     | Created                             | Low                 | Poor        | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 1                              | Low        | 32.06                 |
| Grassed areas                       | Grassland                    | Other neutral<br>grassland               | 26.09     | Created                             | Medium              | Good        | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 15                             | Low        | 183.47                |
| Hardstanding                        | Urban                        | Developed<br>land; sealed<br>surface     | 11.89     | Created                             | V. Low              | N/A - Other | N/A                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 0                              | Low        | 0.00                  |
| Tracks                              | Urban                        | Vacant/derelict/<br>bare ground          | 0.75      | Created                             | Low                 | Poor        | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 1                              | Low        | 1.45                  |
| Attenuation<br>basins               | Urban                        | Sustainable<br>urban drainage<br>feature | 4.68      | Created                             | Low                 | Good        | Low                        | Area/compens<br>ation not in<br>local strategy/                         | 5                              | Medium     | 15.74                 |

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| Habitat type* | UK habs/<br>broad<br>habitat | UK<br>habs/habitat<br>type       | Area (ha)     | Habitat<br>scenario for<br>creation | Distinctiven<br>ess | Condition | Ecological<br>connectivity | Strategic<br>significance                                               | Time to<br>target<br>condition | Difficulty | Biodiversity<br>units |
|---------------|------------------------------|----------------------------------|---------------|-------------------------------------|---------------------|-----------|----------------------------|-------------------------------------------------------------------------|--------------------------------|------------|-----------------------|
|               |                              |                                  |               |                                     |                     |           |                            | no local<br>strategy                                                    |                                |            |                       |
| Swale         | Urban                        | Bioswale                         | 5.23          | Created                             | Low                 | Moderate  | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 1                              | Medium     | 13.53                 |
| Ponds         | Lakes                        | Ponds (Non-<br>priority habitat) | 0.08          | Created                             | High                | Good      | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 5                              | Low        | 1.21                  |
| Ponds         | Lakes                        | Ponds (Priority<br>habitat)      | 0.09          | Created                             | High                | Good      | Low                        | Area/compens<br>ation not in<br>local strategy/<br>no local<br>strategy | 10                             | Medium     | 0.84                  |
| <b>Totals</b> |                              |                                  | <b>108.98</b> |                                     |                     |           |                            |                                                                         |                                |            | <b>350.88</b>         |

\*Habitat typologies are from the illustrative masterplan (Figures 2.1-2.7 in Chapter 2).

**Table 12: Biodiversity units for Sizewell C Sizewell Link Road from hedgerows post-development**

| Hedgerow type                                   | Length (km) | Habitat scenario for creation | Distinctiveness | Condition | Ecological connectivity | Strategic significance                                     | Time to target condition | Difficulty | Hedgerow units |
|-------------------------------------------------|-------------|-------------------------------|-----------------|-----------|-------------------------|------------------------------------------------------------|--------------------------|------------|----------------|
| Native hedgerow                                 | 0.152       | Retained                      | Low             | Poor      | Low                     | Area/compensation not in local strategy/ no local strategy | N/A                      | N/A        | 0.33           |
| Native hedgerow                                 | 1.336       | Retained                      | Low             | Moderate  | Low                     | Area/compensation not in local strategy/ no local strategy | N/A                      | N/A        | 5.88           |
| Native hedgerow with trees                      | 0.123       | Retained                      | Low             | Moderate  | Low                     | Area/compensation not in local strategy/ no local strategy | N/A                      | N/A        | 0.54           |
| Native hedgerow – Associated with bank or ditch | 0.258       | Retained                      | Medium          | Poor      | Low                     | Area/compensation not in local strategy/ no local strategy | N/A                      | N/A        | 1.14           |
| Native species rich hedgerow                    | 0.153       | Retained                      | Medium          | Moderate  | Low                     | Area/compensation not in local strategy/ no local strategy | N/A                      | N/A        | 1.35           |
| Native species rich hedgerow with trees         | 1.254       | Retained                      | Medium          | Moderate  | Low                     | Area/compensation not in local strategy/ no local strategy | N/A                      | N/A        | 11.04          |

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| Hedgerow type                                                           | Length (km)  | Habitat scenario for creation | Distinctiveness | Condition | Ecological connectivity | Strategic significance                                     | Time to target condition | Difficulty | Hedgerow units |
|-------------------------------------------------------------------------|--------------|-------------------------------|-----------------|-----------|-------------------------|------------------------------------------------------------|--------------------------|------------|----------------|
| Native species rich hedgerow with trees – Associated with bank or ditch | 0.211        | Retained                      | High            | Moderate  | Low                     | Area/compensation not in local strategy/ no local strategy | N/A                      | N/A        | 2.79           |
| Native Species Rich Hedgerow with trees – associated with bank or ditch | 4.134        | Created                       | High            | Moderate  | Low                     | Area/compensation not in local strategy/ no local strategy | 10                       | Medium     | 25.60          |
| Native Species Rich Hedgerow with trees                                 | 9.356        | Created                       | Medium          | Moderate  | Low                     | Area/compensation not in local strategy/ no local strategy | 10                       | Medium     | 38.63          |
| <b>Total</b>                                                            | <b>16.98</b> |                               |                 |           |                         |                                                            |                          |            | <b>87.29</b>   |

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### 3.3 Changes in broad habitat types

- 3.3.1 The development will result in changes to the amount and quality of the habitats on the site. The UK habitat classification system used within the metric contains a tiered system, grouping similar habitats into “Broad habitats” and more specific “Habitat types”. For example, “Grassland” is a “Broad habitat”, that can contain “Lowland calcareous grassland” and “Other neutral grassland”, among others. The area and biodiversity unit changes in these broad habitat types are shown in **Table 13** and **Table 14**.
- 3.3.2 The highest value habitats, woodland and forest and grassland would increase in area and biodiversity units. Cropland is considered to be the least valuable habitat and reductions in the area of cropland are predicted. For the remaining habitats only small changes in area and units are predicted.

**Table 13: The changes in the total areas (in hectares) of the broad habitat types**

| Broad habitat type      | On-site baseline | On-site post-development | Change in area |
|-------------------------|------------------|--------------------------|----------------|
| Cropland                | 96.55            | 27.31                    | -69.24         |
| Grassland               | 3.02             | 43.82                    | 40.08          |
| Heathland and shrub     | 0.73             | 0.41                     | -0.32          |
| Lakes                   | 0.33             | 0.44                     | 0.11           |
| Sparsely vegetated land | 0.52             | 0.2                      | -0.32          |
| Urban                   | 5.14             | 21.96                    | 16.82          |
| Woodland and forest     | 2.69             | 14.09                    | 11.40          |

**Table 14: The changes in the total biodiversity unit values of the broad habitat types**

| Broad habitat type | On-site baseline | On-site post-development | Change in biodiversity units |
|--------------------|------------------|--------------------------|------------------------------|
| Cropland           | 193.10           | 52.71                    | -140.39                      |

| Broad habitat type      | On-site baseline | On-site post-development | Change in biodiversity units |
|-------------------------|------------------|--------------------------|------------------------------|
| Grassland               | 8.66             | 218.24                   | 209.58                       |
| Heathland and shrub     | 5.84             | 3.24                     | -2.60                        |
| Lakes                   | 2.70             | 3.96                     | 1.26                         |
| Sparsely vegetated land | 1.04             | 0.39                     | -0.65                        |
| Urban                   | 0.06             | 30.74                    | 30.68                        |
| Woodland and forest     | 29.56            | 33.94                    | 4.38                         |

### 3.4 Areas excluded from assessment

- 3.4.1 No statutory designated sites or 'irreplaceable' habitats were present within the site, so no areas were excluded from the assessment.

## 4 SUMMARY

### 4.1 Summary

- 4.1.1 The summary results of the assessment, using the Defra biodiversity metric 2.0 calculator are presented in **Plate 1**, below.

**Plate 1: Results summary**

|                                                                                                 |                |        |
|-------------------------------------------------------------------------------------------------|----------------|--------|
| On-site baseline                                                                                | Habitat units  | 240.96 |
|                                                                                                 | Hedgerow units | 68.35  |
|                                                                                                 | River units    | 0.00   |
| On-site post-intervention<br>(Including habitat retention, creation, enhancement & succession)  | Habitat units  | 350.88 |
|                                                                                                 | Hedgerow units | 87.29  |
|                                                                                                 | River units    | 0.00   |
| Off-site baseline                                                                               | Habitat units  | 0.00   |
|                                                                                                 | Hedgerow units | 0.00   |
|                                                                                                 | River units    | 0.00   |
| Off-site post-intervention<br>(Including habitat retention, creation, enhancement & succession) | Habitat units  | 0.00   |
|                                                                                                 | Hedgerow units | 0.00   |
|                                                                                                 | River units    | 0.00   |
| Total net unit change<br>(including all on-site & off-site habitat retention/creation)          | Habitat units  | 109.92 |
|                                                                                                 | Hedgerow units | 18.94  |
|                                                                                                 | River units    | 0.00   |
| Total net % change<br>(including all on-site & off-site habitat creation + retained habitats)   | Habitat units  | 45.62% |
|                                                                                                 | Hedgerow units | 27.71% |
|                                                                                                 | River units    | 0.00%  |

- 4.1.2 Under current plans, a 45.62% increase in biodiversity units and 27.71% increase in hedgerow units is predicted.
- 4.1.3 The changes in the area and biodiversity units of each broad habitat type are shown in **Table 15**. The habitats considered to be most valuable, grassland and woodland and forest, are both increasing in area and unit values. Cropland is considered to be the least valuable habitat.

**Table 15: Changes in area and biodiversity units of broad habitat types**

| Broad habitat type | Change in area | Change in biodiversity units |
|--------------------|----------------|------------------------------|
| Cropland           | -69.24         | -140.39                      |

| Broad habitat type      | Change in area | Change in biodiversity units |
|-------------------------|----------------|------------------------------|
| Grassland               | 40.08          | 209.58                       |
| Heathland and shrub     | -0.32          | 2.60                         |
| Lakes                   | 0.11           | 1.26                         |
| Sparsely vegetated land | -0.32          | -0.40                        |
| Urban                   | 16.82          | 30.68                        |
| Woodland and forest     | 11.40          | 4.38                         |

## 5 DEVELOPMENT OVERVIEW RESULTS

### 5.1 Results

- 5.1.1 The results of this assessment can be considered within the context of the overall Sizewell C development that has been assessed using the biodiversity metric (i.e. main development site and three of the AD sites). The three AD sites were chosen for assessment via the metric as they are permanent and have potential for permanent habitat loss. **Table 16** shows the changes in biodiversity units for each of these assessed elements. An increase of approximately 320 units is predicted across these main development site and associated developments, corresponding to an approximate 19% increase in biodiversity units. This increase demonstrates that the portion of the development that has been assessed using the biodiversity metric, is predicted to have a positive impact on biodiversity value.

**Table 16: Overview of entire development results**

| Site                  | Baseline units | Change in units | Percentage change |
|-----------------------|----------------|-----------------|-------------------|
| Main development site | 1244.45        | 224.33          | 18.03%            |
| Two village bypass    | 160.61         | -13.28          | -8.27%            |
| Sizewell Link Road    | 240.96         | 109.92          | 45.62%            |
| Yoxford Roundabout    | 5.84           | -1.08           | -18.48%           |
| <b>Net</b>            | <b>1651.86</b> | <b>319.89</b>   | <b>19.37%</b>     |

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## 6 CONCLUSION

### 6.1 Conclusion

- 6.1.1 Under current proposals it is estimated that for the Sizewell link road there would be a potential increase in biodiversity unit values for habitats of 45.62%, and an increase in hedgerow unit values for hedgerows of 27.71%. This increase in hedgerow units is partly due to the predicted increase of the total length of hedgerows on the site from 10.36km to 17.62km.
- 6.1.2 In addition to the Sizewell link road, the main development site and a series of other off-site associated developments were also assessed via the BM 2.0. (Two Village Bypass and Yoxford Roundabout) and these are presented in separate reports. These sites were chosen for assessment via the metric as they were considered to have potential for permanent habitat loss. When considered as a whole there is predicted to be an approximate 19% increase in biodiversity units across the main development site and three associated developments.
- 6.1.3 An increase in both area and unit value is predicted for the most valuable habitats on the site; grassland and woodland and forest. Cropland is predicted to undergo reductions in area and unit value. The achievement of these units scores is reliant upon achieving the target condition for the created habitats.

## 7 REFERENCES

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## APPENDIX A: CHANGE TO SIZEWELL LINK ROAD RED LINE BOUNDARY

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## APPENDIX B: BASELINE PHASE 1 MAP (FIGURE 1)

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## APPENDIX C: OPERATIONAL MASTERPLANS (FIGURES 6.2.2 - 6.2