# The London Resort Development Consent Order

BC080001

## Environmental Statement
## **Volume 2: Appendices**

## Appendix 12.2 – Biodiversity Net Gain Assessment

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Planning Act 2008
The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
Regulation 5(2)(a)
The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017
Regulation 12(1)

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# Revisions

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# Executive Summary

The Biodiversity Net Gain Assessment has been prepared using the latest version of the Department for the Environment Farming and Rural Affairs (DEFRA) Biodiversity Metric 2.0 in order to measure the net biodiversity impacts of the Proposed Development, in terms of habitat loss, and to ascertain the potential to deliver net biodiversity gain taking into consideration the proposed suite of on-site habitat creation and enhancement measures, and additional off-site measures.

The assessment has demonstrated that, in the absence of off-site mitigation, the Proposed Development will result in the net loss of -829. 98 biodiversity units.

A range of theoretical off-site mitigation scenarios, involving habitat creation and enhancement, have been tested which demonstrate that the Proposed Development is capable of delivering a net gain to biodiversity subject to the delivering of off-site mitigation on between 160 and 210 hectares of land. A set of 'General Principles for Off-site Ecological Mitigation' are provided (Document reference: 6.2.12.10) are provided to inform the off-site mitigation package to be secured through the Development Consent Order.

Subject to delivery of off-site mitigation, the Proposed Development is considered capable of compliance with the various legislation and planning policy requirements relevant to biodiversity.

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# Contents

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# List of Tables

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# Chapter One ◆ INTRODUCTION

1.1. This Biodiversity Net Gain (BNG) assessment has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of London Resort Company Holdings Limited (hereafter referred to as 'the Applicant'). This report presents the BNG calculations (enclosed in full as Annex 1.0) of the proposed London Resort (hereafter referred to as 'the Proposed Development', 'the Project Site', or the 'Kent Project Site'/'Essex Project Site' dependent on context). The extents of the Project Site are displayed on the Illustrative Masterplan (Document Reference 6.3.3.1).

1.2. The BNG assessment has been undertaken using the latest version of the DEFRA Biodiversity Metric 2.0 (as updated 19 December 2019)[1]. The assessment has been undertaken by a suitably experienced ecological consultant and reviewed by a member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

1.3. The BNG assessment has been undertaken to objectively measure the net biodiversity impacts of the Proposed Development, in order to assess the scheme's potential to deliver net biodiversity gain in line with the Applicant's aspirations and local and national planning policy. The assessment has been produced to inform and supplement the Ecological Impact Assessment (EcIA), included within the *Terrestrial and Freshwater Ecology and Biodiversity* chapter of the Environmental Statement (ES) (Document Reference 6.1.12).

[1] Available at http://publications.naturalengland.org.uk/publication/5850908674228224#:~:text=The%20Biodiversity%20Metric%202.0%20encompasses%20both%20area%20%28e.g.,metric%20and%20the%20calculation%20tool%20later%20in%202019.

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# Chapter Two ◆ METHODOLOGY

2.1 The 'baseline' assessment has been undertaken using the Phase 1 Habitat survey and botanical survey information included within the Ecology Baseline Report (Document Reference 6.2.12.1).

2.2 The 'proposed' habitat areas are derived from the Landscape Masterplan (Document Reference 6.3.11.15), enclosed within the Landscape Strategy (Document Reference 6.2.11.7), taking into consideration any supporting design information including the Car Parking Provision and Illustrative Masterplan (Document Reference 6.3.3.1).

2.3 Geographic Information System (GIS) software has been used to accurately calculate areas of existing 'baseline' habitats as shown on the *Biodiversity Net Gain Assessment – Existing Habitats* (Document Reference 6.3.12.42), and habitat areas to be retained, retained and enhanced, or newly created as shown on the *Biodiversity Net Gain Assessment – Proposed Habitats* (Document Reference 6.3.12.43). It should be noted that the mapping used to inform the calculations is illustrative and demonstrates what the likely impacts are based on the design information submitted along with the application for development consent. Therefore, whilst these measurements are considered accurate in the context of existing information submitted as part of the application, they may be subject to change at the detailed design stage, particularly with regards to the Principal Development. The BNG assessment will be updated in line with any design changes that may emerge, and resubmitted as an addendum to the ES.

2.4 No linear assessment has been undertaken due to the absence of linear hedgerow features across the Project Site. Ditches, where present, have been included within the spatial habitat calculations (A1-3) within Annex 1.0 below.

2.5 Due to the limitations of the DEFRA Biodiversity Metric 2.0 tool, in that indirect (degradation) impacts upon linear features cannot be calculated, no assessment of impacts upon rivers has been made within the metric. No direct, measurable (for the purposes of BNG calculations) loss of length of either the River Thames or River Ebbsfleet are anticipated as a result of the Proposed Development.

2.6 The condition of all habitats has been assessed using the condition assessment criteria provided within the 'Technical Supplement' accompanying the DEFRA Biodiversity Metric 2.0[2], where available, using the professional judgement of the assessor to interpret such criteria. The assessor is a qualified ecologist with 6 years of experience in habitat survey and condition assessment. The classification of habitats and assessment of their condition has taken into account comments made through the Preliminary Environmental

[2] Available at http://publications.naturalengland.org.uk/publication/5850908674228224#:~:text=The%20Biodiversity%20Metric%202.0%20encompasses%20both%20area%20%28e.g.,metric%20and%20the%20calculation%20tool%20later%20in%202019.

Information Report (PEIR) consultation, in particular those made by Kent Wildlife Trust (KWT). Full copies of consultation responses are provided within the *Statutory consultee responses to the Preliminary Environmental Information Report* (Document reference: 6.2.12.6) and *Non-statutory consultee responses to the Preliminary Environmental Information Report* (Document reference: 6.2.12.7).

2.7 In line with recommendations made by KWT, habitats have been entered as 'Within area formally identified in local strategy' where that habitat has been specifically referenced within strategies set out as part of Nature Improvement Areas (NIA; specifically the Greater Thames Marshes NIA) or Biodiversity Opportunity Areas (BOA; specifically the Thames-Side Green Corridors).

2.8 The following section breaks down the various components of the BNG assessment to provide further clarity on how individual elements have been entered into the metric. The following should be read in conjunction with the detailed BNG calculations provided in Annex 1.0, along with the baseline and proposed plans (Document Reference 6.3.12.42 and 6.3.12.43), and the supporting documents provided along with the application as referenced above.

2.9 The various parts of the Project Site referred to are illustrated on the *Project Site Areas* (Document reference 6.3.12.1).

**Baseline Habitats**

2.10 Baseline habitats (Document Reference 6.3.12.42) have been entered into the metric as follows:

- **Amenity grassland** - Areas of amenity grassland (predominantly alongside the HS1 railway and associated infrastructure) entered as 'Amenity grassland' in 'Poor' condition due to an intensive management regime and lack of species diversity;
- **Cereal crops** - Small slivers of arable fields along the A2 corridor entered as 'Cereal crops';
- **Developed land** - All hardstanding and buildings entered as 'Developed land; sealed surface';
- **Ditches** - Ditches mapped outside of the wetland floodplain mosaic category were entered as 'Ditches' with 'Moderate' condition. Similar to the ponds, the ditches show some minor signs of contamination and many dry or almost dry in summer, but support a range of invertebrate, amphibian and bird species;
- **Floodplain wetland mosaic** - Habitats within Botany Marsh (west and east) have been grouped within the 'Floodplain Wetland Mosaic CFGM[3]' category as it was considered that mapping and assessing individual components of this mosaic underestimated

[3] Coastal and Floodplain Grazing Marsh – Priority Habitat listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006)

their value to biodiversity. The condition scores for Botany Marsh were divided as follows:

- Botany Marsh west, which largely comprises Coastal and Floodplain Grazing Marsh (CFGM) priority habitat, with an extensive ditch network and large scrapes and temporary pools, was given a 'Moderate' condition score despite supporting an improved grassland sward and being mostly dry for much of the year, due to it supporting an important wetland bird assemblage during winter; and

- Botany Marsh east was given a 'Fairly poor' condition rating due to supporting an improved grassland sward (where grassland is present), being extensively artificially drained and having a significant coverage of undesirable species (predominantly nettle) and scrub.

- **Intertidal mudflats** - Intertidal mudflats around the Swanscombe peninsula have been entered as 'Littoral mud' in 'Good' condition due to the presence of rare invertebrates and an important winter bird assemblage;

- **Lowland calcareous grassland** - Small areas of calcareous grassland adjacent to Black Duck Marsh have been entered as 'Lowland calcareous grassland' in 'Moderate' condition due to the presence of calcareous indicator species, moderate species diversity, but with large areas of bare ground;

- **Lowland mixed deciduous woodland** - Semi-natural woodland has been entered as 'Lowland mixed deciduous woodland' in 'Moderate' condition. This woodland varies significantly over the Kent Project Site. Mature woodland along the A2 corridor situated between ancient woodland and the A2 is considered to be of 'Moderate' condition due to a fairly uniform age structure and the lack of significant dead wood presence and despite the presence of a reasonably diverse canopy and ground-flora. Woodland through the former landfill, sportsground and along the river Ebbsfleet are similarly fragmented, more isolated and less mature but display a more varied age structure. Woodland to the south of Black Duck Marsh is dominated by sycamore (*Acer pseudoplatanus*) in the north but displays a good age structure and ecotone to scrub in the south. There is some evidence of artificial drainage into the marsh in this woodland;

- **Mixed scrub** - Scrub has been entered into the calculator in three conditions under 'Mixed scrub':

  - Large areas of scrub, particularly within the Swanscombe peninsula, have been entered as 'Fairly poor' condition due to a lack of species diversity. This scrub is dominated (>75%) by hawthorn (*Crataegus monogyna*), although dogwood (*Cornus sanguinea*) and dog rose *(Rosa canina*) are present. All scrub is fairly immature, having established in the last c.10 years and some stands are extensive and very dense;

  - Areas of scrub around the southern edge of the peninsula, around Black Duck

Marsh and along the Ebbsfleet valley are more species diverse and display a ruderal edge, glades and a greater diversity of age, although weighted towards younger scrub and lacking very mature scrub. These areas have been given a 'Moderate' condition score; and

- Remaining scrub has been given a 'Poor' condition score due to forming dense stands of single species, single-age scrub with a hard-edge (as in Botany Marsh east) or due to the presence of large amounts of non-native buddleia (*Buddleja davidii*).

- **Modified grassland** - The majority of grassland across the Project Site has been entered as 'Modified grassland', as a direct translation of 'poor semi-improved grassland' from the Phase 1 habitat survey information. This grassland is species-poor across the Project Site and dominated by grasses, but has been entered with varying condition scores, as outlined below:

  - Grassland with significant scrub encroachment (>15%) has been entered with a condition score of 'Fairly poor'. The Biodiversity Metric Technical Supplement suggests a score of 'Poor' for grassland in this condition, but the presence of some nationally scarce plant species is considered to merit a slight increase;

  - Grassland with less or no scrub encroachment and with slightly higher forb diversity was given a condition score of 'Moderate'; and

  - Small slivers of agriculturally improved grassland along the edge of the A2 were given a condition of 'Poor'.

- **Open mosaic habitats on previously developed land** - Land that had a verifiable history of industrial disturbance (through the use of historic aerial photographs/satellite imagery) was compared with the areas of Open Mosaic Habitats on Previously Developed Land (OMHPDL) included as part of the Priority Habitats layer on the DEFRA Multi-Agency Geographic Information for the Countryside (MAGIC) website and the approximate extent then mapped using professional judgement and knowledge of the Project Site. Because of the nature of OMHPDL and the difficulty in accurately defining this mosaic, the mapped extent takes in a wide range of individual habitats, including bare ground, ephemeral vegetation and open grassland. Because of the prevalence of scrub across the Swanscombe peninsula, some areas of mapped OMHPDL included scrub, but large blocks of dense scrub (larger than 2500m$^2$, or smaller, adjacent blocks making up a similar area) were excluded. OMHPDL was assessed for condition based on the spatial diversity (more uniform habitats were scored lower) and the prevalence of scrub. As a result, OMHPDL that showed less evidence of succession to contiguous open grassland was assessed as being in 'Good' condition. Areas with a denser, more homogenous sward and with scrub encroachment were assessed as being in 'Moderate' condition;

- **Other neutral grassland** - Areas of more species-rich grassland along the sea wall near Black Duck Marsh were entered as 'Other neutral grassland' and given an assessment

of 'Moderate' condition. 'Good' condition was not achieved due to the presence of some perennial rye grass (*Lolium perenne*) and being subject to an irregular maintenance schedule, with cutting sometimes occurring during the main flowering season;

- **Other woodland; broadleaved** - Plantation woodland was entered as 'Other woodland; broadleaved' and given a condition assessment of 'Fairly poor' based on poor age class diversity and obvious evidence of planting (straight lines);

- **Ponds (Non-priority habitat)** - Waterbodies with significant evidence of contamination by Cement Kiln Dust (CKD) leachate were entered as 'Ponds (Non- Priority Habitat)' in 'Poor' condition. These ponds support very little to no plant or invertebrate life due to their pH;

- **Ponds (Priority habitat)** - Other waterbodies were entered as 'Ponds (Priority Habitat)' in 'Moderate' condition due to having moderate water quality. Some ponds are uniformly shallow (Black Duck Marsh), are man-made and connected to drainage systems (alongside HS1) or are stocked with carp and have significant litter pollution (Bamber Pit), but all have a semi-natural riparian edge and support a range of waterfowl and invertebrates;

- **Reedbeds** - Reedbeds have been entered as 'Reedbeds' in 'Moderate' condition. Habitat is relatively uniform and contains >60% common reed but shows some signs of scrub encroachment; particularly around the HS1 portal within the Channel Tunnel Rail Link (CTRL) wetland. Drier areas of reedbeds also support some undesirable species, such as nettle;

- **Ruderal and ephemeral vegetation** - Stands of ruderal vegetation and ephemeral vegetation not included within the OMHPDL category were entered as 'Ruderal/Ephemeral' in 'Fairly poor' condition due to the lack of significant species diversity and limited extent;

- **Saltmarsh** - Saltmarsh surrounding the peninsula and a small amount next to a ditch in the centre of the peninsula has been entered as 'Saltmarshes and saline reedbeds' in 'Poor' condition due to the presence of extensive litter and CKD contamination and its relative isolation and fragmentation; and

- **Vacant/derelict/bare ground** - Pathways with exposed soil/gravel and areas of land that have no ground cover not included under the OMHPDL category were entered as 'Vacant/derelict land/bare ground' with 'Poor' condition.

**Retained and Enhanced Habitats**

2.11 Areas of land clearly outside of the building footprint have been entered as either enhanced or retained, dependent on the type of habitat and the details of the Ecological Mitigation and Management Framework (EMMF) (Document reference 6.2.12.3) and any species-specific mitigation strategies included therein.

2.12 Land outside of the actual development footprint but within areas where temporary loss may be necessary (for instance to allow the placement of site compounds or small areas of land within large areas of loss that cannot realistically be protected) has been entered as lost on a precautionary basis.

2.13 Retained and enhanced habitats have been entered into the metric as follows:

- **A2 corridor** - The majority of retained habitat is situated throughout the A2 corridor, where works are anticipated to be limited to signage and, in the Ebbsfleet Valley, where the construction corridor will be restricted to the new road and associated drainage features. Habitats including woodland, grassland, ponds and scrub will be retained in these areas;

- **Ditches** - Ditches will be enhanced from 'Moderate' to 'Good' condition through profiling, sensitive management and water management;

- **Floodplain wetland mosaic** - Floodplain wetland mosaic within Botany Marsh east has been entered as enhanced from 'Fairly poor' to 'Fairly good' condition. Enhancement will involve sensitive management of ditches, addition of new water vole habitat, extension of reedbed, management of the water table and removal/management of scrub;

- **Mixed scrub** - Scrub along the top of the chalk spine, along the railway through Swanscombe and around the boundary of Botany Marsh east will be retained without enhancement;

- Scrub across Broadness Grasslands, Botany Marsh and Bamber Pit will be enhanced from 'Fairly poor' to 'Fairly good', 'Moderate' to 'Good' or 'Poor' to 'Moderate'. This will be achieved through planting to increase species diversity, sensitive management to maintain opportunities for scrubland birds and dormice and creation of glades and ecotone edges;

- **Modified grassland** - Small areas of modified grassland will be enhanced to 'Other neutral grassland' through seeding and sensitive management to create a richer, more structurally diverse grassland;

- **OMHPDL** - A strip of OMHPDL habitat will be retained and enhanced along the northern boundary of the Leisure Core around the electricity pylon. This habitat is known to support distinguished jumping spider (*Attulus distinguendus*), based on previous survey findings, and will be enhanced sympathetically from 'Moderate' to 'Good' condition;

- A large amount of OMHPDL within the Broadness grassland area of the Kent Project Site will be enhanced from 'Moderate' to 'Good' condition through the rotational removal of vegetation, the creation of temporary pools and sensitive management of grassland and scrub to maintain the mosaic of habitats there and introduce a greater degree of spatial variation; and

- **Saltmarsh** - Saltmarsh around the perimeter of the Swanscombe peninsula will be enhanced by removing fly-tipping and limiting contamination through increased leachate management.

**Proposed Habitats**

2.14 Proposed habitats have been entered into the metric as follows:

- **Amenity grassland and shrub planting, wildflower lawns and developed land** - The ratio of developed land to green space within the Principal Development has been estimated based on the Illustrative Masterplan (Document Reference 6.3.3.1), with 60% of the area entered as 'Developed land; sealed surface' and the remaining 40% split evenly between 'Amenity grassland' in 'Fairly poor' condition and 'Other neutral grassland' in 'Fairly poor' condition. This will be achieved through the use of species-rich lawn mixtures. Amenity areas will be managed more regularly, but areas of 'Other neutral grassland' will be allowed to flower between cutting to create structural and floral diversity. In reality, areas of the Principal Development will also be planted with shrubs for amenity value, but as these are valued at the same level as amenity grassland within the calculator, this is not considered to be a limitation of the calculation;

- **Broad-leaved woodland** - New woodland planting has been entered as 'Other woodland; broadleaved' with a 'Moderate' target condition. This is predominantly around Gate 2 of the Proposed Development and within the existing sportsground area;

- **Ditches** - New 'Ditches' have been entered with a target condition of 'Good' and will be profiled and managed for maximum biodiversity value;

- **Floodplain wetland mosaic** - A small amount of new 'Floodplain wetland mosaic (CFGM)' has been entered with a target of 'Moderate' condition to account for the removal of dense scrub within wetland areas in Botany Marsh east;

- **Gravel/Hoggin paths** - New paths have been entered as 'Vacant/derelict land/bareground' in 'Poor' condition;

- **Green/brown roofs** - A number of buildings will be built with 'Brown roofs' or 'Extensive green roofs' for invertebrate/floral value (1.33hectares (ha) and 2.06ha respectively), which have been given a target condition of 'Moderate';

- **Leachate treatment lagoons** - A number of new leachate treatment ponds will be created. These have been entered in the same way as existing leachate ponds, as 'Ponds (Non-priority Habitat)' in 'Poor' condition;

- **Mixed scrub** - New 'Mixed scrub' planting with a target condition of 'Fairly good' will take place around the peripheries of the Resort, to replace lost scrub within Bamber Pit and around the A2 Highway Works, and small areas within the Broadness grassland

area to create or maintain habitat connectivity;

- **OMHPDL** – 'OMHPDL' will be created with a 'Fairly good' target condition in the Broadness grassland area, predominantly where dense scrub has been removed;

- **Other neutral grassland** - 'Other neutral grassland' with a 'Fairly good' target condition will be established to replace loss associated with the new junction around the A2 Highways Work, the new road, landscaping in Bamber Pit, within landscaped areas within the Principal and Associated Developments as defined within the *Landscape Strategy* (Document reference 6.2.11.7);

- The existing grassland along the sea wall north-west of Black Duck Marsh will be lifted and replaced following works, so has been precautionarily entered as lost and recreated to account for any loss in condition;

- **Reedbeds** - New reedbeds associated with the boundary of the Proposed Development have been entered as 'Reedbeds' with a target condition of 'Good'. Scrub and water quality and levels will be managed continuously through operation to ensure this target is achievable;

- **Saltmarsh** - New saltmarsh created as part of the managed retreat around the north-east of the peninsula has been entered as 'Saltmarshes and saline reedbeds' with a target condition of 'Moderate', expanding on existing saltmarsh;

- **Street trees** - An estimate of 2000 street trees was used to calculate an area of 0.9ha of 'Street tree' planting, of a 'Moderate' condition; and

- **Sustainable urban Drainage Systems (SuDS)** - New drainage features have been entered as 'Sustainable urban drainage feature' with a target of 'Moderate' condition. It is likely that the distinctiveness of these features will be higher as they will be designed with ecology in mind.

2.15 The BNG calculations do not account for other protected species enhancement measures such as the provision of bird and bat boxes, dormouse boxes or habitat piles/refuges for reptiles, amphibians and invertebrates, as illustrated on the *Ecology Mitigation Strategy: Species Measures* (Document reference: 6.3.12.44).

# Chapter Three ◆ RESULTS

3.1 The BNG calculations pertaining to habitat areas within the Project Site are provided in Annex 1.0. The headline results are provided within Table 3-1.

**Table 3-1: Headline Results of Biodiversity Net Gain Assessment**

| | **Habitat Units** |
|---|---|
| Total Net Unit Change | -829.98 (net loss) |
| Total Net % Change | -24.78% (net loss) |

3.2 Based on on-site net impacts on biodiversity described above, the Proposed Development will only be capable of delivering a net gain in biodiversity through the detailed design stage and through the provision of significant off-site mitigation. These details are not currently fixed however a commitment to delivering off-site mitigation of an appropriate scale and type is set out within the *General Principles for Off-site Ecological Mitigation* report (Document Reference 6.2.12.10). A sample of theoretical scenarios is provided below in Chapter 4 in which a net gain could be achieved.

3.3 It should, however, also be noted that the EMMF (Document Reference 6.1.12.3) and associated species-specific mitigation strategies set out a range of enhancement measures for protected species that are unaccounted for by the Biodiversity Metric but will deliver further species-specific benefits to the on-site biodiversity.

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# Chapter Four ◆ THEORETICAL SCENARIOS LEADING TO NET GAIN

4.1 An exact portrayal of how off-site mitigation land can provide a net gain in this case cannot be provided in the absence of baseline habitat data for the specific area of off-site land in question and knowledge of the limitations and advantages of that particular area of land based on an ecological evaluation. Instead, a number of scenarios have been explored in order to illustrate how the Proposed Development might achieve a net gain to biodiversity, in a manner which allows an approximate quantum of the scale of mitigation necessary when certain parameters are set, and demonstrates that the net biodiversity gain is technically achievable.

4.2 Potentially suitable land will be subject to an initial Extended Phase 1 Habitat survey followed by an assessment of the potential impacts of any proposals for habitat creation /enhancement on the existing habitats and species of conservation value. The impact assessment, and design of ecological mitigation measures will be informed by detailed 'Phase 2' ecological surveys as considered necessary following the completion of the initial Phase 1 survey. Natural England will be consulted on the survey proposals.

4.3 For the purposes of this assessment, the following assumptions for the off-site mitigation land to be acquired have been made. Justification has been given where necessary:

- Land obtained for mitigation will be within the same Local Planning Authority (LPA; Gravesham District or Dartford District) or National Character Area (NCA; Greater Thames Marshes or North Kent Plain) as lost habitat within the Kent Project Site;
- Grassland within the mitigation land would be enhanced through seeding and appropriate management to create 'Other neutral grassland';
- Without actual data from the off-site land, an assessment of connectivity using the DEFRA Connectivity Tool is not possible and the interim guidance set out within the DEFRA Biodiversity Metric 2.0 User Guide[4] is used instead;
- It is assumed that mitigation land will not be in one contiguous parcel, and that wetland habitat will therefore be created within the Greater Thames Marshes NIA and thereby assessed as 'Within area formally identified in local strategy'. Woodland created adjacent to existing woodland and species-rich grassland will be situated within the Thames-side Green Corridors BOA and will therefore also be assessed as

[4] Available at http://publications.naturalengland.org.uk/publication/5850908674228224#:~:text=The%20Biodiversity%20Metric%202.0%20encompasses%20both%20area%20%28e.g.,metric%20and%20the%20calculation%20tool%20later%20in%202019.

'Within area formally identified in local strategy';

- To directly mitigate the loss of functionally linked land within the Project Site, namely 14.55ha of 'Floodplain Wetland Mosaic (Coastal/Floodplain Grazing Marsh)' and 0.94ha of reedbed within Black Duck Marsh, habitat will be replaced on a 2 to 1 basis. For that reason, each scenario will include at least 29.1ha of grassland (entered as 'Other neutral grassland'), ditches, ponds and temporary pools/scrapes, as well as at least 1.88ha of reedbed; and

- To ensure no net loss of dormouse habitat, at least 50.58ha of suitable habitat will be created or enhanced (i.e. mixed scrub and broadleaved woodland).

4.4 Five potential scenarios have been set out within Tables 4-1 – 4-5 below.

**Table 4-1: Theoretical off-site mitigation land scenario: 100% arable land, all habitats created with target of 'Moderate' condition**

| Existing Habitat | Existing Habitat Size (Ha) | Existing Unit Value | Proposed Habitat | Proposed Habitat Size (Ha) | Biodiversity Units Delivered |
|---|---|---|---|---|---|
| Arable | 210 | 420 | Other neutral grassland (moderate condition) | 100 | 644.26 |
| | | | Reedbeds (moderate condition) | 23 | 163.81 |
| | | | Temporary pools (scrapes) (moderate condition) | 15 | 127.67 |
| | | | Ponds (moderate condition) | 5 | 42.56 |
| | | | Ditches (moderate condition) | 2 | 15.40 |
| | | | Mixed scrub (moderate condition) | 45 | 372.03 |
| | | | Broadleaved woodland (moderate condition) | 20 | 42.34 |
| **Total** | **210** | **420** | | **210** | **1408.07** |
| **Off-site Units Gained (units delivered minus existing units)** | | | | | **988.07** |
| **Overall Net gain/loss (units)** | | | | | **158.09** |
| **Net gain/loss (%)** | | | | | **4.72%** |

**Table 4-2: Theoretical off-site mitigation land scenario: 100% Arable Land, all Habitats Created with Target of 'Fairly Good' Condition**

| Existing Habitat | Existing Habitat Size (Ha) | Existing Unit Value | Proposed Habitat | Proposed Habitat Size (Ha) | Biodiversity Units Delivered |
|---|---|---|---|---|---|
| Arable | 200 | 400 | Other neutral grassland (fairly good condition) | 90 | 674.94 |
| | | | Reedbeds (fairly good condition) | 23 | 190.68 |
| | | | Temporary pools (scrapes) (fairly good condition) | 15 | 148.61 |
| | | | Ponds (fairly good condition) | 5 | 49.54 |
| | | | Ditches (fairly good condition) | 2 | 17.92 |
| | | | Mixed scrub (fairly good condition) | 45 | 433.06 |
| | | | Broadleaved woodland (fairly good condition) | 20 | 49.28 |
| **Total** | **200** | **400** | | **200** | **1564.03** |
| **Off-site Units Gained (units delivered minus existing units)** | | | | | **1164.03** |
| **Overall Net gain/loss (units)** | | | | | **334.05** |
| **Net gain/loss (%)** | | | | | **9.97** |

**Table 4-3: Theoretical off-site mitigation land scenario: 75% arable land, 25% modified grassland, all habitats created with or enhanced to target of 'Moderate' condition**

| Existing Habitat | Existing Habitat Size (Ha) | Existing Unit Value | Proposed Habitat | Proposed Habitat Size (Ha) | Biodiversity Units Delivered |
|---|---|---|---|---|---|
| Arable | 150 | 300 | Other neutral grassland (moderate condition) | 49 | 315.69 |
| | | | Reedbeds (moderate condition) | 20 | 142.45 |
| | | | Temporary pools (scrapes) (moderate condition) | 5 | 42.56 |
| | | | Ponds (moderate condition) | 5 | 42.56 |
| | | | Ditches (moderate condition) | 1 | 7.7 |
| | | | Mixed scrub (moderate condition) | 50 | 413.37 |
| | | | Broadleaved woodland (moderate condition) | 20 | 42.34 |
| Modified grassland (poor condition) | 50 | 100 | Enhanced to Other neutral grassland (moderate condition) | 50 | 356.60 |
| **Total** | **200** | **400** | | **200** | **1363.27** |
| **Off-site Units Gained (units delivered minus existing units)** | | | | | **963.27** |
| **Overall Net gain/loss (units)** | | | | | **133.29** |
| **Net gain/loss (%)** | | | | | **3.98** |

**Table 4-4: Theoretical off-site mitigation land scenario: 50% Arable Land, 50% Modified Grassland, all Habitats Created with or Enhanced to Target of 'Moderate' Condition**

| Existing Habitat | Existing Habitat Size (Ha) | Existing Unit Value | Proposed Habitat | Proposed Habitat Size (Ha) | Biodiversity Units Delivered |
|---|---|---|---|---|---|
| Arable | 100 | 200 | Other neutral grassland (moderate condition) | 30 | 193.28 |
| | | | Reedbeds (moderate condition) | 23 | 163.81 |
| | | | Temporary pools (scrapes) (moderate condition) | 10 | 85.11 |
| | | | Ponds (moderate condition) | 5 | 42.56 |
| | | | Ditches (moderate condition) | 2 | 15.4 |
| | | | Mixed scrub (moderate condition) | 35 | 289.36 |
| | | | Broadleaved woodland (moderate condition) | 15 | 31.75 |
| Modified grassland (poor condition) | 100 | 200 | Enhanced to Other neutral grassland (moderate condition) | 80 | 570.56 |
| **Total** | **200** | **400** | | **200** | **1391.83** |
| **Off-site Units Gained (units delivered minus existing units)** | | | | | **991.83** |
| **Overall Net gain/loss (units)** | | | | | **161.85** |
| **Net gain/loss (%)** | | | | | **4.83** |

**Table 4-5: Theoretical off-site mitigation land scenario: 50% Arable Land, 50% Modified Grassland, all Habitats Created with or Enhanced to Target of 'Fairly Good' Condition**

| Existing Habitat | Existing Habitat Size (Ha) | Existing Unit Value | Proposed Habitat | Proposed Habitat Size (Ha) | Biodiversity Units Delivered |
|---|---|---|---|---|---|
| Arable | 80 | 160 | Other neutral grassland (fairly good condition) | 10 | 74.99 |
| | | | Reedbeds (fairly good condition) | 20 | 165.81 |
| | | | Temporary pools (scrapes) (fairly good condition) | 5 | 49.54 |
| | | | Ponds (fairly good condition) | 4 | 39.63 |
| | | | Ditches (fairly good condition) | 1 | 8.96 |
| | | | Mixed scrub (fairly good condition) | 35 | 336.82 |
| | | | Broadleaved woodland (fairly good condition) | 15 | 36.96 |
| Modified grassland (poor condition) | 80 | 160 | Enhanced to Other neutral grassland (fairly good condition) | 70 | 580.97 |
| **Total** | **160** | **320** | | **160** | **1293.68** |
| **Off-site Units Gained (units delivered minus existing units)** | | | | | **973.68** |
| **Overall Net gain/loss (units)** | | | | | **143.70** |
| **Net gain/loss (%)** | | | | | **4.29** |

4.5 Based on these hypothetical calculations, it is concluded that between 160 and 210ha of off-site mitigation land will be required to achieve a biodiversity net gain. The precise quantum is, however, highly dependent upon the baseline habitat and condition, but also upon the target condition that can realistically be achieved on the land in question.

# Chapter Five ◆ SUMMARY AND CONCLUSION

5.1 The BNG assessment has demonstrated that, in the absence of off-site mitigation, the Proposed Development will result in the net loss of -829. 98 biodiversity units.

5.2 A range of theoretical off-site mitigation scenarios, involving habitat creation and enhancement, have been tested which demonstrate that the Proposed Development is capable of delivering a net gain to biodiversity subject to the delivering of off-site mitigation on between 160 and 210ha of land.

5.3 The off-site land acquired to provide a biodiversity net gain will need to meet several specific objectives and mitigation functions in respect of: the loss of habitats functionally linked to nearby European sites; loss of habitats for dormouse and reptiles; and habitat enhancements for invertebrates. To facilitate this, a set of 'General Principles for Off-site Ecological Mitigation' are provided (Document reference: 6.2.12.10).

5.4 Subject to the delivery of off-site mitigation in accordance with the principles prescribed within the 'General Principles for Off-site Ecological Mitigation' (Document reference: 6.2.12.10), with further details to be agreed in writing with relevant statutory consultees including Natural England, and delivery of any shortfall in biodiversity units to make a net gain, it is considered that the Proposed Development can comply with the various legislation and planning policy requirements relevant to ecology.

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# Annex

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# Annex 1.0 Biodiversity Metric 2.0 – Habitat Units (edp5988_r018)

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## Headline Results

Return to results menu

| | | |
|---|---|---|
| On-site baseline | *Habitat units* | 3350.03 |
| | *Hedgerow units* | 0.00 |
| | *River units* | 0.00 |
| On-site post-intervention (Including habitat retention, creation, enhancement & succession) | *Habitat units* | 2520.05 |
| | *Hedgerow units* | 0.00 |
| | *River units* | 0.00 |
| Off-site baseline | *Habitat units* | 0.00 |
| | *Hedgerow units* | 0.00 |
| | *River units* | 0.00 |
| Off-site post-intervention (Including habitat retention, creation, enhancement & succession) | *Habitat units* | 0.00 |
| | *Hedgerow units* | 0.00 |
| | *River units* | 0.00 |
| Total net unit change (including all on-site & off-site habitat retention/creation) | *Habitat units* | -829.98 |
| | *Hedgerow units* | 0.00 |
| | *River units* | 0.00 |
| Total net % change (including all on-site & off-site habitat creation + retained habitats) | *Habitat units* | -24.78% |
| | *Hedgerow units* | 0.00% |
| | *River units* | 0.00% |

**Detailed Results**

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## Summary Figures

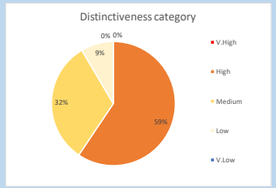
| | | |
|---|---|---|
| Net project biodiversity units (including all on-site & off-site habitat retention/creation) | *Habitat units* | -829.98 |
| | *Hedgerow units* | 0.00 |
| | *River units* | 0.00 |
| Total project biodiversity % change (including all On-site & Off-site Habitat Creation + Retained Habitats) | *Habitat units* | -24.78% |
| | *Hedgerow units* | 0.00% |
| | *River units* | 0.00% |

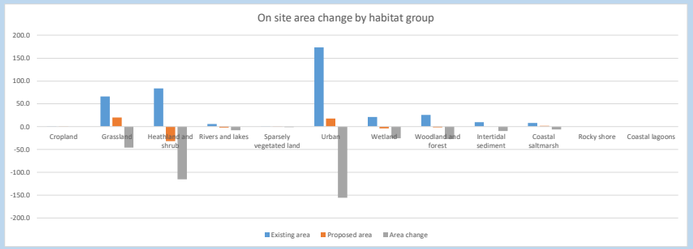
### On-site habitat retention and enhancement

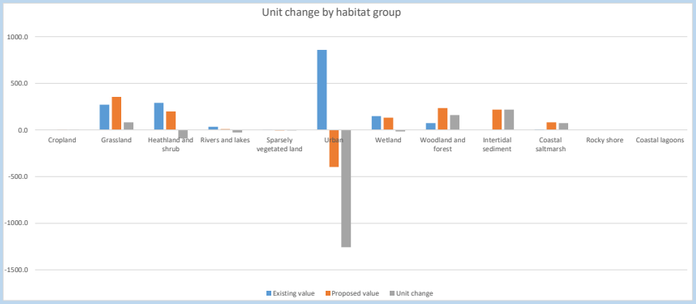
| | Habitats | Hedgerows | Rivers |
|---|---|---|---|
| Total site area / length | 395.03 | 0.00 | 0.00 |
| Total site units | 3350.03 | 0.00 | 0.00 |
| Area / length retained | 157.27 | 0.00 | 0.00 |
| Units Retained | 911.17 | 0.00 | 0.00 |
| Area / length enhanced | 67.39 | 0.00 | 0.00 |
| Baseline units enhanced | 752.09 | 0.00 | 0.00 |
| Area / length succession | 0.00 | | |
| Units succession | 0.00 | | |
| Area / length lost | 170.37 | 0.00 | 0.00 |
| Units lost | 1686.77 | 0.00 | 0.00 |

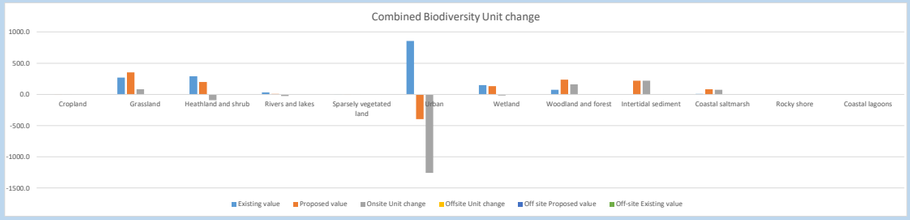
### lost by distinctiveness l

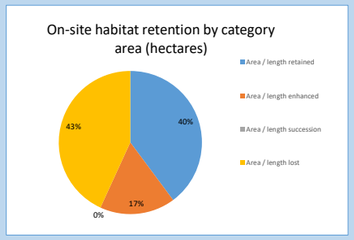
| Category | Area lost (hectares) | Area lost (%) |
|---|---|---|
| V.High | 0 | |
| High | 80.23 | 59 |
| Medium | 43.25 | 32 |
| Low | 11.46 | 8 |
| V.Low | 0 | |

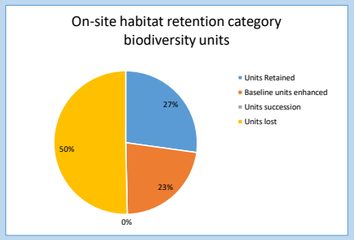



| On-site | Baseline | | Post development on site | | Onsite Change | |
|---|---|---|---|---|---|---|
| **Habitat group** | Existing area | Existing value | Proposed area | Proposed value | Area change | Onsite Unit change |
| Cropland | 0.2 | 0.0 | 0.2 | 0.3 | 0.0 | 0.3 |
| Grassland | 66.3 | 271.2 | 20.4 | 354.1 | -45.9 | 83.0 |
| Heathland and shrub | 83.9 | 290.6 | -31.5 | 199.0 | -115.4 | -91.6 |
| Rivers and lakes | 6.1 | 34.7 | -1.9 | 9.4 | -8.0 | -25.3 |
| Sparsely vegetated land | 0.4 | 1.2 | -0.4 | -1.0 | -0.8 | -2.2 |
| Urban | 173.4 | 858.7 | 17.6 | -397.4 | -155.8 | -1256.1 |
| Wetland | 21.3 | 148.4 | -4.0 | 132.1 | -25.3 | -16.3 |
| Woodland and forest | 25.7 | 74.3 | -1.3 | 235.2 | -27.0 | 160.9 |
| Intertidal sediment | 9.6 | 0.0 | 0.0 | 218.6 | -9.6 | 218.6 |
| Coastal saltmarsh | 8.2 | 7.7 | 2.0 | 83.0 | -6.2 | 75.2 |
| Rocky shore | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Coastal lagoons | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Overall Change | |
|---|---|
| Area change | Unit change |
| 0.0 | 0.3 |
| -45.9 | 83.0 |
| -115.4 | -91.6 |
| -8.0 | -25.3 |
| -0.8 | -2.2 |
| -155.8 | -1256.1 |
| -25.3 | -16.3 |
| -27.0 | 160.9 |
| -9.6 | 218.6 |
| -6.2 | 75.2 |
| 0.0 | 0.0 |
| 0.0 | 0.0 |

| Off-site | Baseline | | Post development Off-site | | Off-site Change | |
|---|---|---|---|---|---|---|
| **Habitat group** | Existing area | Off-site Existing value | Proposed area | Off site Proposed value | Area change | Offsite Unit change |
| Cropland | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Grassland | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Heathland and shrub | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rivers and lakes | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sparsely vegetated land | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Urban | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wetland | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Woodland and forest | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Intertidal sediment | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Coastal saltmarsh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rocky shore | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Coastal lagoons | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Combined | Baseline | | Combined Post development | | Combined change | |
|---|---|---|---|---|---|---|
| **Habitat group** | Existing area | Existing value | Proposed area | Proposed value | Proposed area | Proposed value |
| Cropland | 0.2 | 0.0 | 0.2 | 0.3 | 0.0 | 0.3 |
| Grassland | 66.3 | 271.2 | 20.4 | 354.1 | -45.9 | 83.0 |
| Heathland and shrub | 83.9 | 290.6 | -31.5 | 199.0 | -115.4 | -91.6 |
| Rivers and lakes | 6.1 | 34.7 | -1.9 | 9.4 | -8.0 | -25.3 |
| Sparsely vegetated land | 0.4 | 1.2 | -0.4 | -1.0 | -0.8 | -2.2 |
| Urban | 173.4 | 858.7 | 17.6 | -397.4 | -155.8 | -1256.1 |
| Wetland | 21.3 | 148.4 | -4.0 | 132.1 | -25.3 | -16.3 |
| Woodland and forest | 25.7 | 74.3 | -1.3 | 235.2 | -27.0 | 160.9 |
| Intertidal sediment | 9.6 | 0.0 | 0.0 | 218.6 | -9.6 | 218.6 |
| Coastal saltmarsh | 8.2 | 7.7 | 2.0 | 83.0 | -6.2 | 75.2 |
| Rocky shore | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Coastal lagoons | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## A-1 Site Habitat Baseline

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| | Habitats and areas | | | Habitat distinctiveness | Habitat condition | Ecological connectivity | Strategic significance | Suggested action to address habitat losses | Ecological baseline |
|---|---|---|---|---|---|---|---|---|---|
| Ref | Broad Habitat | Habitat type | Area (hectares) | Distinctiveness | Condition | Ecological connectivity | Strategic significance | | Total habitat units |
| 1 | Urban | Urban - Amenity grassland | 4 | Low | Poor | Low | Area/compensation not in local | Same distinctiveness or better | 8.00 |
| 2 | Cropland | Cropland - Cereal crops | 0.16 | Low | N/A - | N/A | Area/compensation not in local | Same distinctiveness or better | 0.32 |
| 3 | Urban | Urban - Developed land; sealed surface | 101.66 | V.Low | N/A - Other | N/A | Area/compensation not in local strategy/ no local strategy | Compensation Not Required | 0.00 |
| 4 | Grassland | Grassland - Floodplain Wetland Mosaic (CFGM) | 14.65 | High | Moderate | Medium | Within area formally identified in | Same habitat required | 222.39 |
| 5 | Grassland | Grassland - Floodplain Wetland Mosaic (CFGM) | 11.95 | High | Fairly Poor | Medium | Within area formally identified in | Same habitat required | 136.05 |
| 6 | Intertidal sediment | Intertidal sediment - Littoral mud | 9.6 | High | Good | Medium | Within area formally identified in | Same habitat required | 218.59 |
| 7 | Grassland | Grassland - Lowland calcareous grassland | 0.15 | High | Moderate | Medium | Within area formally identified in local strategy | Same habitat required | 2.28 |
| 8 | Woodland and forest | Woodland and forest - Lowland mixed deciduous woodland | 21.78 | High | Moderate | High | Within area formally identified in local strategy | Same habitat required | 345.65 |
| 9 | Heathland and shrub | Heathland and shrub - Mixed scrub | 30.61 | Medium | Fairly Poor | High | Area/compensation not in local | Same broad habitat or a higher | 211.21 |
| 10 | Heathland and shrub | Heathland and shrub - Mixed scrub | 36.46 | Medium | Moderate | High | Area/compensation not in local | Same broad habitat or a higher | 335.43 |
| 11 | Heathland and shrub | Heathland and shrub - Mixed scrub | 16.82 | Medium | Poor | High | Area/compensation not in local | Same broad habitat or a higher | 77.37 |
| 12 | Grassland | Grassland - Modified grassland | 4.74 | Low | Fairly Poor | Low | Area/compensation not in local | Same distinctiveness or better | 14.22 |
| 13 | Grassland | Grassland - Modified grassland | 32.78 | Low | Moderate | Low | Area/compensation not in local | Same distinctiveness or better | 131.12 |
| 14 | Grassland | Grassland - Modified grassland | 0.45 | Low | Poor | Low | Area/compensation not in local | Same distinctiveness or better | 0.90 |
| 15 | Urban | Urban - Open Mosaic Habitats on Previously Developed Land | 15.42 | High | Good | Medium | Within area formally identified in | Same habitat required | 351.11 |
| 16 | Urban | Urban - Open Mosaic Habitats on Previously Developed Land | 51.71 | High | Moderate | Medium | Within area formally identified in local strategy | Same habitat required | 784.96 |
| 17 | Grassland | Grassland - Other neutral grassland | 1.59 | Medium | Moderate | High | Location ecologically desirable but | Same broad habitat or a higher | 16.09 |
| 18 | Woodland and forest | Woodland and forest - Other woodland; broadleaved | 3.91 | Medium | Fairly Poor | Medium | Within area formally identified in | Same broad habitat or a higher | 29.68 |
| 19 | Lakes | Lakes - Ponds (Non- Priority Habitat) | 1.56 | High | Poor | Medium | Area/compensation not in local | Same habitat required | 10.30 |
| 20 | Lakes | Lakes - Ponds (Priority Habitat) | 2.67 | High | Moderate | Medium | Area/compensation not in local strategy/ no local strategy | Same habitat required | 35.24 |
| 21 | Wetland | Wetland - Reedbeds | 21.26 | High | Moderate | High | Within area formally identified in local strategy | Same habitat required | 337.40 |
| 22 | Sparsely vegetated land | Sparsely vegetated land - Ruderal/Ephemeral | 0.44 | Low | Fairly Poor | Low | Area/compensation not in local | Same distinctiveness or better | 1.32 |
| 23 | Coastal saltmarsh | Coastal Saltmarsh -saltmarshes and saline reedbeds | 8.2 | High | Poor | Medium | Within area formally identified in local strategy | Same habitat required | 62.24 |
| 24 | Urban | Urban - Vacant/derelict land/ bareground | 0.62 | Low | Poor | Low | Area/compensation not in local | Same distinctiveness or better | 1.24 |
| 25 | Lakes | Lakes - Ditches | 1.84 | Medium | Moderate | Low | Within area formally identified in local strategy | Same broad habitat or a higher distinctiveness habitat required | 16.93 |
| 26 | | | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| | | Total site area ha | 395.03 | | | | | Total Site baseline | 3350.03 |

| Retention category biodiversity value | | | | | | | | Bespoke compensation agreed for unacceptable losses | Comments | |
|---|---|---|---|---|---|---|---|---|---|---|
| Area retained | Area enhanced | Area succession | Baseline units retained | Baseline units enhanced | Baseline units succession | Area lost | Units lost | | Assessor comments | Reviewer comments |
| 3.12 | | | 6.24 | 0.00 | 0.00 | 0.88 | 1.76 | | | |
| 0.16 | | | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 66.23 | | | 0.00 | 0.00 | 0.00 | 35.43 | 0.00 | | | |
| | 0.1 | | 0.00 | 1.52 | 0.00 | 14.55 | 220.87 | | | |
| | 11.95 | | 0.00 | 136.05 | 0.00 | 0.00 | 0.00 | | | |
| 9.6 | | | 218.59 | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 0.15 | | | 2.28 | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 17.36 | | | 275.50 | 0.00 | 0.00 | 4.42 | 70.15 | | | |
| 1.52 | 10.19 | | 10.49 | 70.31 | 0.00 | 18.90 | 130.41 | | | |
| 19.36 | 3.26 | | 178.11 | 29.99 | 0.00 | 13.84 | 127.33 | | | |
| 3.86 | 5.82 | | 17.76 | 26.77 | 0.00 | 7.14 | 32.84 | | | |
| 1.28 | | | 3.84 | 0.00 | 0.00 | 3.46 | 10.38 | | | |
| 25.77 | 0.9 | | 103.08 | 3.60 | 0.00 | 6.11 | 24.44 | | | |
| 0.45 | | | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | | | 0.00 | 0.00 | 0.00 | 15.42 | 351.11 | | | |
| 2.26 | 16.21 | | 34.31 | 246.07 | 0.00 | 33.24 | 504.58 | | | |
| 0.06 | | | 0.61 | 0.00 | 0.00 | 1.53 | 15.48 | | | |
| 3.36 | | | 25.50 | 0.00 | 0.00 | 0.55 | 4.17 | | | |
| 0.56 | | | 3.70 | 0.00 | 0.00 | 1.00 | 6.60 | | | |
| 1.44 | | | 19.01 | 0.00 | 0.00 | 1.23 | 16.24 | | | |
| 0.68 | 11.23 | | 10.79 | 178.22 | 0.00 | 9.35 | 148.38 | | | |
| 0.05 | | | 0.15 | 0.00 | 0.00 | 0.39 | 1.17 | | | |
| | 7.18 | | 0.00 | 54.50 | 0.00 | 1.02 | 7.74 | | | |
| | | | 0.00 | 0.00 | 0.00 | 0.62 | 1.24 | | | |
| | 0.55 | | 0.00 | 5.06 | 0.00 | 1.29 | 11.87 | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| 157.27 | 67.39 | 0.00 | 911.17 | 752.09 | 0.00 | 170.37 | 1686.77 | | | |

## A-2 Site Habitat Creation

Condense / Show Columns | Condense / Show Rows

Main Menu | Instructions

| Post development/ post intervention habitats | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Ecological connectivity | | | Strategic significance | | | Temporal multiplier | | Difficulty multipliers | | | Comments | |
| Proposed habitat | Area (hectares) | Distinctiveness | Score | Condition | Score | Ecological connectivity | Connectivity | Connectivity multiplier | Strategic significance | Strategic significance | Strategic position multiplier | Time to target condition/years | Time to target multiplier | Difficulty of creation category | Difficulty of creation multiplier | Habitat units delivered | Assessor comments | Reviewer comments |
| Urban - Brown roof | 1.33 | Medium | 4 | Moderate | 2 | Low | Unconnected habitat | 1 | Area/compensation not in local strategy/ no local strategy | Low Strategic Significance | 1 | 5 | 0.837 | Medium | 0.67 | 5.97 | | |
| Urban - Developed land; sealed surface | 71.3 | V.Low | 0 | N/A - Other | 0 | Low | Unconnected habitat | 1 | Area/compensation not in local strategy/ no local strategy | Low Strategic Significance | 1 | 0 | 1.000 | Low | 1 | 0.00 | | |
| Urban - Extensive green roof | 2.06 | Medium | 4 | Moderate | 2 | Low | Unconnected habitat | 1 | Area/compensation not in local strategy/ no local strategy | Low Strategic Significance | 1 | 3 | 0.899 | Medium | 0.67 | 9.92 | | |
| Urban - Amenity grassland | 23.75 | Low | 2 | Fairly Poor | 1.5 | Low | Unconnected habitat | 1 | Area/compensation not in local strategy/ no local strategy | Low Strategic Significance | 1 | 2 | 0.931 | Low | 1 | 66.35 | | |
| Heathland and shrub - Mixed scrub | 8.42 | Medium | 4 | Fairly Good | 2.5 | High | Highly connected habitat | 1.15 | Area/compensation not in local strategy/ no local strategy | Low Strategic Significance | 1 | 5 | 0.837 | Low | 1 | 81.03 | | |
| Urban - Sustainable urban drainage feature | 1.9 | Low | 2 | Moderate | 2 | Low | Unconnected habitat | 1 | Area/compensation not in local | Low Strategic | 1 | 3 | 0.899 | Medium | 0.67 | 4.58 | | |
| Urban - Open Mosaic Habitats on Previously Developed Land | 1.41 | High | 6 | Fairly Good | 2.5 | Medium | Moderately connected | 1.1 | Within area formally identified in local | High strategic | 1.15 | 7 | 0.779 | Medium | 0.67 | 13.97 | | |
| Grassland - Other neutral grassland | 21.74 | Medium | 4 | Fairly Good | 2.5 | High | Highly connected habitat | 1.15 | Within area formally identified in local | High strategic | 1.15 | 12 | 0.652 | Low | 1 | 187.49 | | |
| Woodland and forest - Other woodland; broadleaved | 3.67 | Medium | 4 | Moderate | 2 | Medium | Moderately connected | 1.1 | Within area formally identified in local | High strategic | 1.15 | 30 | 0.343 | Medium | 0.67 | 8.55 | | |
| Lakes - Ponds (Non- Priority Habitat) | 0.63 | High | 6 | Poor | 1 | Medium | Moderately connected habitat | 1.1 | Within area formally identified in local strategy | High strategic significance | 1.15 | 1 | 0.965 | Low | 1 | 4.61 | | |
| Wetland - Reedbeds | 5.31 | High | 6 | Good | 3 | High | Highly connected habitat | 1.15 | Within area formally identified in local | High strategic | 1.15 | 15 | 0.586 | Medium | 0.67 | 49.63 | | |
| Coastal Saltmarsh -saltmarshes and saline reedbeds | 3.04 | High | 6 | Moderate | 2 | Medium | Moderately connected | 1.1 | Within area formally identified in local | High strategic | 1.15 | 10 | 0.700 | High | 0.33 | 10.66 | | |
| Lakes - Ditches | 1 | Medium | 4 | Good | 3 | Low | Unconnected habitat | 1 | Within area formally identified in local strategy | High strategic significance | 1.15 | 10 | 0.700 | Low | 1 | 9.66 | | |
| Urban - Vacant/derelict land/ bareground | 0.52 | Low | 2 | Poor | 1 | Low | Unconnected habitat | 1 | Area/compensation not in local strategy/ no local strategy | Low Strategic Significance | 1 | 1 | 0.965 | Low | 1 | 1.00 | | |
| Grassland - Floodplain Wetland Mosaic (CFGM) | 0.53 | High | 6 | Moderate | 2 | Medium | Moderately connected habitat | 1.1 | Within area formally identified in local strategy | High strategic significance | 1.15 | 20 | 0.490 | High | 0.33 | 1.30 | | |
| Grassland - Other neutral grassland | 23.76 | Medium | 4 | Fairly Poor | 1.5 | High | Highly connected habitat | 1.15 | Within area formally identified in local strategy | High strategic significance | 1.15 | 5 | 0.837 | Low | 1 | 157.77 | | |
| Urban - Street Tree | 0.9 | Low | 2 | Moderate | 2 | Low | Unconnected habitat | 1 | Area/compensation not in local strategy/ no local strategy | Low Strategic Significance | 1 | 27 | 0.382 | Low | 1 | 1.38 | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Totals | 170.37 | | | | | | | | | | | | | | Total Units | 613.88 | | |

## A-3 Site Habitat Enhancement

Condense / Show Columns | Condense / Show Rows | Main Menu | Instructions

| | Baseline habitats | Post development/ post intervention habitats: Change in distinctiveness and condition | | | Area (hectares) | Distinctiveness | Condition | Ecological connectivity | Strategic significance | Temporal multiplier | Difficulty multipliers | Habitat units delivered | Comments | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseline ref | Baseline habitat | Proposed habitat (Pre-populated but can be overridden) | Distinctiveness change | Condition change | | | | Ecological connectivity score | Strategic significance | Time to target condition/years | Difficulty of enhancement category | | Assessor comments | Reviewer comments |
| 4 | Grassland - Floodplain Wetland Mosaic (CFGM) | Grassland - Floodplain Wetland Mosaic (CFGM) | High - High | Moderate - Fairly Good | 0.1 | High | Fairly Good | Medium | Within area formally identified in local strategy | 5 | High | 1.62 | | |
| 5 | Grassland - Floodplain Wetland Mosaic (CFGM) | Grassland - Floodplain Wetland Mosaic (CFGM) | High - High | Fairly Poor - Fairly Good | 11.95 | High | Fairly Good | Medium | Within area formally identified in local strategy | 10 | High | 157.01 | | |
| 9 | Heathland and shrub - Mixed scrub | Heathland and shrub - Mixed scrub | Medium - Medium | Fairly Poor - Fairly Good | 10.19 | Medium | Fairly Good | High | Area/compensation not in local strategy/ no local strategy | 5 | Low | 109.54 | | |
| 10 | Heathland and shrub - Mixed scrub | Heathland and shrub - Mixed scrub | Medium - Medium | Moderate - Good | 3.26 | Medium | Good | High | Area/compensation not in local strategy/ no local strategy | 3 | Low | 43.47 | | |
| 11 | Heathland and shrub - Mixed scrub | Heathland and shrub - Mixed scrub | Medium - Medium | Poor - Moderate | 5.82 | Medium | Moderate | High | Area/compensation not in local strategy/ no local strategy | 5 | Low | 49.18 | | |
| 13 | Grassland - Modified grassland | Grassland - Other neutral grassland | Low - Medium | Lower Distinctiveness Habitat - Fairly Good | 0.9 | Medium | Fairly Good | High | Within area formally identified in local strategy | 12 | Low | 9.42 | | |
| 16 | Urban - Open Mosaic Habitats on Previously Developed Land | Urban - Open Mosaic Habitats on Previously Developed Land | High - High | Moderate - Good | 16.21 | High | Good | Medium | Within area formally identified in local strategy | 4 | Medium | 317.55 | | |
| 21 | Wetland - Reedbeds | Wetland - Reedbeds | High - High | Moderate - Good | 11.23 | High | Good | High | Within area formally identified in local strategy | 10 | Medium | 220.03 | | |
| 23 | Coastal Saltmarsh -saltmarshes and saline reedbeds | Coastal Saltmarsh -saltmarshes and saline reedbeds | High - High | Poor - Moderate | 7.18 | High | Moderate | Medium | Within area formally identified in local strategy | 10 | Medium | 80.07 | | |
| 25 | Lakes - Ditches | Lakes - Ditches | Medium - Medium | Moderate - Good | 0.55 | Medium | Good | Medium | Within area formally identified in local strategy | 5 | Medium | 7.13 | | |
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| | | | | Total site area | 67.39 | | | | | | Enhancement total | 995.00 | | |