

# Lewes Biodiversity Study

**Lewes District Council** 

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## Quality information

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# 1. Introduction

## The Lewes Biodiversity Study

- 1.1 Lewes District Council (LDC) are in the process of preparing a new Lewes Local Plan (LP). This will be the key planning document that will shape, plan and manage growth, regeneration and development across the District, based on a 20-year vision for those parts of Lewes outside of the South Downs National Park (SDNP)<sup>1</sup>. The areas within the Lewes District council authority boundary but outside of the SDNP area will hereafter be referred to as 'the Local Plan area'. The location of Lewes and the SDNP Authority area are illustrated in Figure A1.
- 1.2 This document (The Lewes Biodiversity Study) has been commissioned by Lewes District Council to undertake the following exercises:
  - 1. To map the existing BAP habitats within Lewes, primarily using MAGIC but with some infilling of gaps from aerial photography;
  - To examine a selection of sites provided by Lewes District Council as being potentially available for allocation in the Lewes Local Plan to determine whether they contain any ecological constraints that are likely to interfere with the delivery of development;
  - 3. Given the requirement for 10% Biodiversity Net Gain (BNG) within the district, there may be a need for offsite delivery of BNG for the district in order to facilitate delivery of development on sites that cannot deliver their own onsite BNG. This report, therefore, sets out:
    - a) BNG calculations for a series of development site 'typologies' that can be used to determine the overall likely off-site BNG capacity required for the District;
    - b) A series of proposals for land parcels within or outside the district boundary that could be investigated further regarding the delivery of that net gain;
    - c) Considering whether there is a justification for the decision of Lewes Council to seek 20% BNG, rather than the legally mandated 10%; and
    - d) Estimated ballpark costings for delivery of 10% BNG, to input to a viability assessment. This can then be scaled up to greater levels of BNG, such as 20%.
  - 4. To identify areas where habitats and key wildlife corridors can be enhanced in Lewes District to maximise habitat connectivity across the district and with the National Park (such as linking to the South Downs Way Ahead Nature Improvement Area) and to identify appropriate locations for habitat banking.
- 1.3 Note that the BNG study undertaken in this report is not intended to replace the detailed BNG calculations undertaken for each planning application. In practice, determining the actual BNG requirement and on-site net gain potential for a development site requires a detailed masterplan for that site, which does not exist at the Local Plan allocation stage. Therefore, the BNG

<sup>&</sup>lt;sup>1</sup> As the SDNP is covered by a separate Local Plan (<u>South Downs Local Plan - SDNP Authority</u>) and Housing Needs Assessment (<u>General Report Template (southdowns.gov.uk</u>))

calculations presented in this document are intended to be representative typologies. This is a high-level assessment aimed at giving some indicative figures for LDC to understand where they may or may not have opportunities.

### The Biodiversity Net Gain Requirement

1.4 Biodiversity Net Gain (BNG) is an approach to development, and/or land management, that aims to leave the natural environment in a measurably better state than it was beforehand. It is provided in legislation by the Environment Act 2021, and it is becoming a legal requirement for all development consented via the Town & Country Planning Act to deliver a minimum 10% BNG. Some authorities, like Lewes or the Kent local authorities, are contemplating going beyond 10% BNG. Biodiversity improvements on a proposed site would be encouraged, but in circumstances where they are not possible, developers will need to pay a levy for habitat creation or improvement elsewhere. To support the development of the next Lewes Local Plan, the Council has requested that AECOM undertake an assessment to help inform how much BNG will be required at a strategic level to deliver allocations identified in the developing Local Plan, whilst enabling the Council to meet its BNG targets.

## **Biodiversity in Lewes**

## **National Character Areas (NCA)**

- 1.5 Lewes Council area consists of three distinct National Character Areas. These character areas are distinguished by a combination of landscape, biodiversity, geodiversity and economic activity:
  - Low Weald Natural Area (No. 121) the low-lying clay vale which largely wraps around the northern, western and southern edges of the High Weald. It is predominantly agricultural, supporting mainly pastoral farming owing to heavy clay soils, with horticulture and some arable on lighter soils in the east, and has many densely wooded areas with a high proportion of ancient woodland<sup>2</sup>.
  - High Weald Natural Area<sup>3</sup> (No. 122) The High Weald NCA encompasses the ridged and faulted sandstone core of the Kent and Sussex Weald. It is an area of ancient countryside and one of the best surviving medieval landscapes in northern Europe. Consisting of a mixture of fields, small woodlands and farmsteads connected by historic routeways, tracks and paths.
  - South Downs Natural Area (No. 125) chalk downland located to the south of the District that stretches from the western extent of the District through to the Hampshire Downs<sup>4.</sup> Two per cent of the coastline between Eastbourne and Seaford is recognised as Heritage Coast.

## **Statutory Nature Conservation Designations**

1.6 Statutory designated sites have been illustrated in Appendix A, Figure A1 for reference.

 $<sup>^2 \ \</sup>text{Available at:} \ \underline{\text{http://publications.naturalengland.org.uk/publication/12332031?category=587130}} \ \ [\text{accessed 27/01/2023}]$ 

<sup>&</sup>lt;sup>3</sup> Available at: NCA Profile:122 High Weald - NE508 (naturalengland.org.uk) [accessed 27/01/2023]

<sup>&</sup>lt;sup>4</sup> Available at: NCA Profile:125:South Downs - NE432 (naturalengland.org.uk) [accessed 27/01/2023]

#### **International Designations**

There are no international designated sites within the Local Plan area. However, two SACs are located within the SDNP area and one SAC and SPA are located within 10km of the Local Plan area. The location of these are illustrated in Figure Α1

#### **Lewes Downs SAC**

1.8 Located within the SDNP area, Lewes Downs SAC5, 450m south of the site, hosts the priority habitat type "orchid rich sites". This chalk grassland site largely Festuca ovina – Avenula *pratensis* and of erectus calcareous grasslands. This site contains an important assemblage of rare and scarce orchids, including early spider-orchid *Ophrys sphegodes*, burnt orchid Orchis ustulata and musk orchid Herminium monorchis. The colony of burnt orchid is one of the largest in the UK.

#### **Castle Hill SAC**

1.9 Approximately 40% of Castle Hill SAC<sup>6</sup> lies within the district boundary (located in the SDNP). This site hosts the priority habitat type "orchid rich sites". This chalk grassland consists of a mosaic of calcareous semi-natural dry grasslands. notably *Festuca* ovina – Avenula pratensis grassland, erectus grassland and Brachypodium pinnatum grassland. Castle Hill's important assemblage of rare and scarce species includes early spiderorchid Ophrys sphegodes and burnt orchid Orchis ustulata. The colony of early spider-orchid is one of the largest in the UK.

#### Ashdown Forest SAC and SPA

1.10 Located approximately 5km east of the district boundary. Ashdown Forest SAC<sup>7</sup> and SPA<sup>8</sup> contains one of the largest single continuous blocks of lowland heath in south-east England, with both European dry heaths and, in a larger proportion, wet heath. The M16 Erica tetralix - Sphagnum compactum wet heath element provides suitable conditions for several species of bog-mosses *Sphagnum* spp., bog asphodel Narthecium ossifragum, deergrass Trichophorum cespitosum, common cotton-grass Eriophorum angustifolium, marsh gentian Gentiana pneumonanthe and marsh clubmoss Lycopodiella inundata. The site supports important assemblages of beetles, dragonflies, damselflies and butterflies, including the nationally rare silver-studded blue Plebejus argus, and birds of European importance, such as European nightjar Caprimulgus europaeus, Dartford warbler Sylvia undata and Eurasian hobby Falco subbuteo. It supports important lichen assemblages, including species such as Pycnothelia papillaria. This site supports the most inland remaining population of hairy greenweed Genista pilosa in Britain. It is also designated for Great Crested Newts (Triturus cristatus).

#### **National Designations**

#### Brighton to Newhaven Cliffs SSSI<sup>9</sup>

1.11 This coastal site comprises the length of chalk cliff stretching from Black Rock. Brighton in the west to Castle Hill, Newhaven in the east and includes the wave cut platform at the cliff base. Although the main interest of the site is geological some rare and uncommon plants grow both on the cliff face and in the narrow

<sup>&</sup>lt;sup>5</sup> Available at: <u>Lewes Downs - Special Areas of Conservation (jncc.gov.uk)</u> [accessed 27/01/2023]

<sup>&</sup>lt;sup>6</sup> Available at: Castle Hill - Special Areas of Conservation (jncc.gov.uk) [accessed 27/01/2023]

<sup>7</sup> Available at: Ashdown Forest - Special Areas of Conservation (jncc.gov.uk) [accessed 27/01/2023]

<sup>&</sup>lt;sup>8</sup> Available at: UK9012181.pdf (jncc.gov.uk) [accessed 27/01/2023]

<sup>&</sup>lt;sup>9</sup> Available at SSI detail (naturalengland.org.uk) [accessed 27/01/2023]

strip of cliff-top chalk grassland. The cliffs support a locally important colony of breeding seabirds and a diverse community of beetles. Unimproved chalk grassland grows in small pockets between the cliff top and the adjacent fence line, and as a larger expanse in the landslip area at Castle Hill

#### **Chailey Common SSSI**

1.12 Chailey Common SSSI<sup>10</sup> is a good example of the sub-Atlantic English heath habitat. A variety of heathland plant communities are represented which in turn support diverse invertebrate and bird communities. The mosaic of heath vegetation lies on Ashdown Sands and comprises acidic grassland, marshy grassland, wet and dry heath, and areas of continuous bracken *Pteridium aquilinum*. Species-rich acidic flushes are periodically associated with the small seasonal streams, and the two ponds have marginal plant communities. Scrub invasion is well established over parts of the common and in places the succession to woodland is complete. The common supports a variety of butterflies, including several notable species; the silver-studded blue *Plebejus argus*, grayling *Hipparchia semele*, pearl-bordered fritillary *Boloria euphrosyne* and high brown fritillary *Argynnis adippe*.

#### Ditchling Common SSSI<sup>11</sup>

1.13 This site on Weald Clay contains a range of grassland types which have resulted from the wide variation in drainage conditions. The flora includes a number of locally uncommon plants. Variable drainage and past management of the site have led to a diversity of habitats. An acidic heath grassland dominates but ungrazed areas consist of bracken, scrub and woodland. Streams dissect the site, although all but one are seasonally dry, and there is a small pond. Butterfly and moth populations are of importance and the site is locally valuable for breeding birds.

#### **Plashett Park Wood SSSI**

1.14 Plashett Park Wood SSSI<sup>12</sup> is an area of ancient woodland on Weald clays contains a rich community of breeding birds. In addition, it includes a number of plants and invertebrates which have a nationally restricted distribution. The wood appears on the 1<sup>st</sup> Edition Ordnance Survey map of 1816 with much the same shape and extent as at present and it is likely that continuous woodland cover has been maintained since at least the Middle Ages. Although some parts of the wood have been modified by conifer planting the bulk is semi-natural. Two nationally uncommon stand types dominate most of the wood and the long-term lack of disturbance has allowed the development of a rich flora and fauna.

#### Scaynes Hill SSSI

1.15 The disused quarry and road section at Scaynes Hill<sup>13</sup> exposes yellow sandstone of the Cuckfield Sandstone Member which lies within the Grinstead Clay Formation (upper Hastings Beds Group, Wealden Series). The Cuckfield Sandstone is a lenticular unit of fine-grained sandstone which is found throughout much of the outcrop of the Grinstead Clay, dividing the Formation into Lower and Upper Members.

#### **Marine Conservation Zone**

<sup>&</sup>lt;sup>10</sup> Available at <u>SSSI detail (naturalengland.org.uk)</u> [accessed 27/01/2023]

<sup>&</sup>lt;sup>11</sup> Available at <u>SSSI detail (naturalengland.org.uk)</u> [accessed 01/02/2023]

<sup>&</sup>lt;sup>12</sup> Available at SSSI detail (naturalengland.org.uk) [accessed 01/02/2023]

<sup>&</sup>lt;sup>13</sup> Available at <u>SSSI detail (naturalengland.org.uk)</u> [accessed 01/02/2023]

1.16 Beachy Head West Marine Conservation Zone (MCZ)<sup>14</sup> is located along the coastal extent of the District. The Beachy Head West MCZ runs parallel to the East Sussex coastline, extending from Brighton to the Beachy Head cliffs near Eastbourne. The Beachy Head West MCZ protects a multitude of habitat types and their associated species. The extensive intertidal wave cut chalk platforms and subtidal chalk ridges present are considered to be among the best examples of chalk habitat in the southeast region. The chalk reefs and gullies support specialised communities of animals and seaweeds. The rare and cryptic short-snouted seahorse is known to be present along this area of coastline. The habitats present support large areas of sea squirt beds and areas of Ross coral are thought to be present. Black legged kittiwakes, common and sandwich terns regularly feed within the site.

#### **Local Nature Reserves**

- 1.17 Chailey Common LNR15: Chailey Common is dominated by heathers, predominantly Ling Heather, but two other native species: Bell and Cross-Leaved Heather can also be found. The heather and gorse provide a habitat for many birds, such as the Stonechat, Yellowhammer and Linnet. The Nightjar is also a regular summer visitor, as is the Hobby. The commons are also home to several of our native reptiles, such as adders and common lizards with many small ponds providing homes for a variety of amphibians.
- 1.18 Castle Hill Newhaven LNR16: Cliff top chalk and clay maritime flora and the northern slope is dominated by hawthorn, blackthorn and gorse scrub with sunny glades. Important for sea birds including kittiwakes, fulmars and other gulls. Other birds include sparrowhawks, flycatchers, finches etc Reptiles include slow worms and common lizards. There are several badger sets on the north slope.

## **Non- Statutory Nature Conservation Designations**

1.19 The location of these are illustrated in Figure A2.

#### **Local Wildlife Sites: Sites of Nature Conservation Importance**

- 1.20 There are 43 Local Wildlife Sites (LWS) within the District. These are selected based on criteria as set out in Defra's 2006 Guidance<sup>17</sup>The location of these are illustrated in Figure A2. These are as follows:
  - Old Brickfield (L52): Grassland site periodically inundated with brackish water allowing maritime species to establish in the sward. (2.24ha)
  - Tide Mills (L60): 50% of this LWS is within the Site. Area of vegetated shingle, saltmarsh, marshy meadows, chalk embankment with downland flora and few cultivated fields with wet margins. The area supports large flocks of waders, slow worms, grass snakes and nereid worms. (152.14ha)
  - Castle Hill, Newhaven (L41): Cliff habitat where chalk is overlain by tertiary sands and clays forming springs and wetland communities not normally associated with chalk habitats. (15.49ha)
  - Meeching Down (L68): Disused quarry with marginal woodland and scrub. The habitat is rich in lichens, mosses and liverworts. (6.58)

<sup>&</sup>lt;sup>14</sup> Available at: Designated Sites View (naturalengland.org.uk) [accessed 27/01/2023]

<sup>&</sup>lt;sup>15</sup> Available at Designated Site [accessed 27/01/2023]

<sup>&</sup>lt;sup>16</sup> Available at: Designated Site [accessed 27/01/2023]

<sup>&</sup>lt;sup>17</sup> Available at Local Sites - guidance on their identification, selection and management (lws-sussex.org.uk) (accessed 13/09/2023)

- Peacehaven Heights (L70): Cliff habitat with species rich calcareous grassland, gully stream of exceptional bryological importance, pond with marginal vegetation and areas of scrub. (15.07)
- Covered Reservoir, Links Lane, Peacehaven (L15): Covered reservoirs of species rich turf communities. (0.61ha)
- Newhaven Ponds (L42): Series of 5 tree-lined ponds within urban expanse.
   Aquatic vegetation is not extensive but establishing and common toad has been recorded. (1.02ha)
- Newhaven Refuse Tip (L43): Grassland matrix with damp and dry communities contributing to an exceptionally species rich sward and notable rare plants. (26.72ha)
- Halcombe Farm (L66): Unimproved species rich calcareous grassland with areas of dense scrub. (8.48ha)
- Cliff Grassland, Cairo Avenue, Peacehaven (L12): Part of this LWS is within the Site. Coastal grassland site including scrub, improved and rough herbaceous grassland. (1.63ha)
- Tarring Neville Downs (L58): Part of this LWS is within the Site.
   Four compartments of chalk downland dominated by tor grassland with some areas retaining high species richness but highly vulnerable to nutrient input. (23.91ha)
- Hemsleys Rough (L25): Slightly acid grazing meadow dominated by purple moor grass. (4.19ha)
- Barcombe Reservoir, Barcombe Mill (L02): Open water habitat important for breeding and overwintering birds with over 150 spp. recorded. Relief channel support red data book leaf beetle. (23.01ha)
- Marshy Fields and lake by Wellington Farm (L39): Drainage ditch, stream, lake and marshy grassland matrix rich with wetland flora and rough grassland in the drier areas. (7.59ha)
- Brambleside Meadow (L73): Partially within the Site. Grassland meadow with damp areas supporting species rich sward but needs to be managed as a hay meadow to dissuade the establishment of more rank grass spp. (1.42ha)
- Beaks Farm Marsh (L03): Fen, wet wood and damp grassland habitat within the Ouse floodplain (2.03ha)
- Down Coppice (L20): Wealden Clay woodland and scrub complex on ancient site with ditch and bank systems and historic management influencing different wooded communities. (47.16ha)
- Scobells Meadow (L51): Steep sided unimproved grassland with species rich sward, ant hills and damper areas harbouring juncus and *carex spp*. (045ha)
- Dismantled Railway Line, Barcombe (L18): Valuable wildlife corridor consisted of woodland, scrub and herb rich chalk grassland on sunny slopes providing good invertebrate habitat. (3.24ha)
- Knowlands Wood, Barcombe Cross (L30): Ancient hornbeam coppice woodland with large pond on southern boundary with willow and oak forming the bankside on the northern half. (34.35ha)

- Oldpark Wood (L47): Species rich woodland on ancient site dominated by oak on wet and dry Wealden clay soils. (36.65ha)
- Spithurst Churchyard, Spithurst (L54): Species rich grassland with large population of green-winged orchids, heather, common spotted orchid and field scabious. (0.51ha)
- Whitegate Meadow, Spithurst (L65): Small unimproved meadow with large population of green-winged and common spotted orchids and adders tongue fern. (0.93ha)
- Longford Stream & Marshy Fields, Spithurst (L35): Stream and bankside habitat of herb rich neutral grassland, wooded areas and marshy/fen habitat which provides good cover and no agricultural disturbance. (11.44ha)
- Founthill Wood North (L22): Wooded stream with marginal herb/fen communities on boggy soil. (2.54ha)
- Kiln Wood and Starvecrow Wood (L27): Ancient woodland site forming a mosaic of oak, hornbeam, coppice with areas of pine and sweet chestnut. (15.45ha)
- Markstakes Common (L67): Habitat matrix of woodland, scrub, bracken, ponds and disused clay pits creating a diverse open access area with high diversity of flora including rarer species. (46.73ha)
- Newick Fields (L44): Damp grassland supporting associated flora running along the northern margin of small willow lined stream. (1.29ha)
- Chailey Warren (L11): Sussex Wildlife Trust (SWT) owned site of *Molinia* dominated grassland with damp grassland communities and heather.
   Threatened by scrub. (3.34ha)
- Little Rotherfield Wood (L34): Historic heathy woodland site dominated by oak with typical oak understorey. Large oak standards, coppices and wild service trees surrounded by bank and ditch systems demonstrate the sites historic element. (6.20ha)
- Frick Wood Heathland (L23): Ancient site where heathland has established on old pine plantation. (9.16ha)
- Wapsbourne Wood (L61): Part of larger ancient woodland site dissected by county boundary. Dominated by sweet chestnut coppice with hazel, hornbeam, alder and oak coppiced areas. (51.92ha)
- Chailey Churchyard (L10): Open grassland site with diverse ground flora and ancient yews. (0.80ha)
- Eels Ash Wood & Long Wood (L21): Ancient oak woodland with birch, hazel coppice and hornbeam and area of replanting after storm damage. Ground flora dominated by bluebells and anemone. (12.92ha)
- Popjoy Meadow, Chailey (L49): Wooded ancient shaw of large oak standards and hornbeam coppice adjacent to a damp meadow which is regularly flooded boasting a diversity of ground flora and scrub. (4.69ha)
- Middle Home Wood and Southam Farm (L40): Ancient W10 coppiced woodland consisting of hornbeam and hazel under oak standards. Important component of a large complex of woodland fragments. (16.14ha)

- Great Home Farm, Hattons Wood (L24): Ancient Oak Coppice Woodland site with rotational management. Diverse wooded flora with small ponds creating wetter communities. (22.35ha)
- Plumpton Wood (North) (L48): Woodland mosaic dominated by Quercus, Carpinus and Fraxinus spp in the canopy with a high diversity of rare and localised ground flora. (6.42ha)
- Longridge Wood & Sedgebrook Marsh (L36): Ancient regenerating woodland of mature oak and hazel and hornbeam understory and aspen, birch and alder regrowth with an area of wet meadow and fen on the southwest boundary (20ha)
- Blackbrook Wood & The Plantation (L07): Ancient woodland site with historic earthworks on Wealden clay with associated diverse flora. Southern compartment consists of ash coppice with oak and ash standards. (41.41ha)
- Ditchling Common Meadow (L19): Unimproved chalk grassland meadow with species rich sward. (1.81ha)
- Purchase Wood (L50): Ancient oak and hornbeam coppice woodland with areas of parkland, management of coppice needs to be carried out to thin out the canopy. (9.38ha)
- St Georges Retreat (L57): Species rich unimproved grassland with large population of green-winged orchid and other uncommon species including adders tongue fern. (3.35ha)

#### **Ancient Woodland**

- 1.21 There are 194 areas of ancient woodland and 30 areas of potential ancient woodland areas within or partially within the District, equating to 1067.06ha.
- 1.22 The two largest of these are Plashett Wood, which is designated as a SSSI, and Wapsbourne wood which is part of Wapsbourne Wood (L61) LWS.

#### **Priority Habitats**

- 1.23 Fourteen Priority habitats are found within the Lewes District. The locations of these are illustrated in Appendix A, Figure A3. These are:
  - Coastal and Floodplain Grazing Marsh
  - Good quality semi-improved grassland
  - Lowland Dry Acid Grassland
  - Lowland Meadows
  - Lowland Heathland
  - Lowland Fens
  - Deciduous Woodland
  - Traditional Orchards
  - Wood pasture and Parkland (BAP Priority Habitat)
  - Coastal Saltmarsh
  - Coastal Vegetated Shingle
  - Maritime Cliffs and Slopes

- Mudflats
- Lowland Calcareous Grassland
- Open Mosaic Habitat on Previously Developed Land
- 1.24 In addition to the habitats identified above (taken from MAGIC.gov.uk), individual features of suitable quality such as hedgerows, watercourses and waterbodies that have not been identified on mapping have the potential to be Priority Habitats

# Other Biodiversity of Relevance in Lewes SDNP

1.25 National Parks are recognised as landscapes of exceptional beauty, fashioned by nature and the communities which live in them. In 2010 the SDNP (SDNP) was established based on the following Special Qualities: diverse, inspirational landscapes and breath-taking views; a rich variety of wildlife and habitats including rare and internationally important species; tranquil and unspoilt places; an environment shaped by centuries of farming and embracing new enterprise; great opportunities for recreational activities and learning experiences; well-conserved historical features and a rich cultural heritage; and distinctive towns and villages, and communities with real pride in their area. The SDNP stretches from Eastbourne, through to East Hampshire, covering a majority of Lewes District Council.

#### **Country Park**

1.26 Ditchling Common Country Park: The Country Park covers 76 hectares (188 acres) of a once larger area of common land. It was traditionally grazed by cattle which created an open landscape interspersed with trees and scrub. Grazing declined during the 1940s and more scrub and woodland encroached into the open areas.

#### **Biodiversity Opportunity Areas**

- 1.27 Biodiversity Opportunity Areas (BOA) were identified following a Natural England-facilitated methodology and protocol which brought together spatial habitat data sets and local biodiversity forums to identify the clusters/concentrations of designated sites and priority habitats across the landscape which, if better connected and expanded through habitat creation or restoration, would help to create ecological networks across the Southeast. Lewes contains eight Biodiversity Opportunity Areas (BOA) (including those located partially or entirely outside of the Lewes District plan area, within the SDNP Authority).
  - East Brighton Downs BOA<sup>18</sup> is a large BOA that links the urban chalk grasslands of the city of Brighton and Hove to the classic rural chalk grasslands overlooking the River Ouse. Running from Whitehawk, Sheepcote valley past Bevendean and beyond, this area contains extensive blocks of chalk grassland. There is much farmland in between these blocks and the area generally has high visitor pressure from Brighton residents. The area extends northeast to Kingston and stretches west to beyond Rottingdean and Telscombe to Peacehaven. There are many areas of significant arable plant populations in this area. Opportunities identified include chalk grassland management, restoration and creation, coastal habitat management,

<sup>&</sup>lt;sup>18</sup> Available at East Brighton Downs Biodiversity Opportunity Area (sussexInp.org.uk) [accessed 16/05/2023]

- restoration and creation, policy integration, landowner advisory and agrienvironment schemes, farmland bird interest, working with and attracting new businesses, education and community engagement, including links to health, and access improvements. A small portion of this BOA is located within the Lewes District plan area, with most of the BOA located within the SDNP.
- Lewes Brooks and the Ouse Valley BOA<sup>19</sup> contains the Lewes Railway Land Local Nature Reserve. To the east lies Lewes Brooks, an area of wet grassland, some of which is managed by the RSPB. Further south, the River Ouse is heavily embanked, which is currently protecting freshwater habitats in a tidal floodplain. The area around Iford has good ditch ecology being particularly rich in dragonflies. Opportunities identified include coastal habitat management, restoration and creation, wetland habitat management, restoration and creation, education and community engagement, policy integration, landowner advisory and agri-environment schemes, floodplain restoration and reconnection, working with and attracting new businesses, chalk grassland butterfly interest, volunteer opportunities, ecological networks, and water quality improvement. Only a small portion of this BOA is located within the Lewes District plan area, northeast of Glyndebourne. The majority of the BOA is located within the SDNP.
- Lewes Downs BOA<sup>20</sup> covers the Sussex Wildlife Trust reserves of Malling Down and Southerham as well as the National Nature Reserve of Mount Caburn. The internationally recognised area is famed for its species rich chalk grassland. The area has been extended north to follow the geological extent of the chalk and to the west and south is bordered by roads and the urban edge of Lewes. Opportunities identified include policy integration, education and community engagement, landowner advisory and agri-environment schemes, farmland bird interest, chalk grassland management, restoration and creation, volunteer opportunities, and access improvements. This BOA is located entirely within the SDNP.
- Lower Cuckmere reaches (BOA)<sup>21</sup> represents a priority area for the delivery of Biodiversity Action Plan (BAP) targets, it is one of 75 across Sussex. The BOA is comprised mainly of coastal habitat including mudflats, grazing march, saltmarsh and the scarce vegetated shingle and covers approximately 136 hectares. The Lower Cuckmere Reaches is surrounded by downland and met by the Seven Sisters chalk cliffs. The area consists of aged Victorian embankments, holding back the River Cuckmere from its floodplain. A recent decision by the Environment Agency to reduce the coastal sea defences in the south of this area will lead to the development of floodplain grazing marsh, mudflat and saltmarsh in this area, with discussions around the reinstatement of old meanders still to be completed. As the River meets the coast there is a large saline lagoon and some vegetated shingle. The soft cliffs of Seven Sisters and the famous, littoral chalk platform are a habitat characteristic of this iconic stretch of coastline. It also contains 38 BAP species. Opportunities identified includes wetland habitat management, restoration and creation; woodland management and restoration, including gill woodland; ecological networks and landowner advisory and agri-environmental schemes. This BOA is located entirely within the South Downs National Park.

<sup>&</sup>lt;sup>19</sup> Available at Lewes Brooks and the Ouse Valley Biodiversity Opportunity Area (sussexInp.org.uk) [accessed 16/05/2023]

<sup>&</sup>lt;sup>20</sup> Available at 46 Lewes Downs Biodiversity Opportunity Area (sussexInp.org.uk) [accessed 16/05/2023]

<sup>&</sup>lt;sup>21</sup> Available at: 61 Lower Cuckmere watershed Biodiversity Opportunity Area (sussexInp.org.uk) [accessed 01/02/2023]

- Mid Ouse Floodzone BOA <sup>22</sup> is located upstream of Lewes and is severely affected by flooding. The River Ouse is heavily embanked here with some historic meanders still evident in the landscape. The area is agricultural with some existing wet grassland. Opportunities identified include policy integration, education and community engagement, wetland habitat management, restoration and creation, floodplain restoration and reconnection, and water quality improvement. This BOA Is partially located within the Lewes District plan area.
- The Seaford to Eastbourne Downs BOA<sup>23</sup> lies on chalk. Habitats are dominated by lowland calcareous grassland. Other habitats: coastal and floodplain grazing marsh, coastal saltmarsh, coastal vegetated shingle, lowland meadows, maritime cliff and slope, traditional orchards, reedbeds, saline lagoons, wood-pasture and parkland and woodland. It also contains 150 BAP species. Opportunities identified include: ecological networks; chalk heath management, restoration and creation; chalk grassland management, restoration and creation; wetland habitat management, restoration and creation; woodland management and diversification, education and community engagement; botanical interest; farmland bird interest; chalk grassland butterfly interest; landowner advisory and agri-environment schemes; floodplain restoration and reconnection; policy integration and grazing management. This BOA is located within the SDNP surrounding Seaford.
- Stanmer and Ditchling Downs BOA<sup>24</sup> is dominated by the South Downs landscape, from the steep scarp to the north heading south into the urban area of Brighton. The area contains Stanmer Park which has historic interest as well as ancient woodland, and it is a popular destination for day visits and, more frequently, large events. There are many community projects based in Stanmer Park. To the far south the area includes Hollingbury and the downs around Moulsecombe. These areas contain chalk grassland relicts but are predominantly agricultural land on the urban fringe. There are some important arable plant areas on the urban fringe. Opportunities identified include networks, policy integration, education and engagement, chalk grassland management, restoration and creation, grazing urban biodiversity, farmland bird interest, management, opportunities, chalk grassland butterfly interest, aquifer protection, access improvements and working with and attracting new businesses. This BOA is not located within the Lewes District plan area, but within the South Downs National Park.
- Western Ouse streams and Ashdown Forest BOA<sup>25</sup>. The southern part of the area (which is located within Lewes District) captures the eastern River Ouse and its headwaters, south towards the confluence with the River Uck. In the southern area smaller patches of heathland exist alongside many ponds and modern wood-pasture. The area is an important watershed between the Medway and Ouse systems and is likely to be important for the migration of key species between catchments. The north of the BOA (which is located)

PreparedFor: Lewes District Council

<sup>&</sup>lt;sup>22</sup> Available at <u>47 Mid Ouse floodzone Biodiversity Opportunity Area (sussexInp.org.uk)</u> [accessed 16/05/2023]

<sup>&</sup>lt;sup>23</sup> Available at: <a href="http://sussexInp.org.uk/wp-content/themes/twentytwentyone-child/BOAdocuments/Seaford to Eastbourne Downs.pdf">http://sussexInp.org.uk/wp-content/themes/twentytwentyone-child/BOAdocuments/Seaford to Eastbourne Downs.pdf</a> Seaford to Eastbourne Downs Biodiversity Opportunity Area (2003)

<sup>(</sup>sussexInp.org.uk) [accessed 01/02/2023]

24 Available at Stanmer and Ditchling Downs Biodiversity Opportunity Area (sussexInp.org.uk) [accessed 16/05/2023]

25 Available at 48 Western Ouse streams and Ashdown Forest Biodiversity Opportunity Area (sussexInp.org.uk) [accessed 16/05/2023]

<sup>&</sup>lt;sup>25</sup> Available at 48 Western Ouse streams and Ashdown Forest Biodiversity Opportunity Area (sussexInp.org.uk) [accessed 16/05/2023]

outside of Lewes District) is dominated by the European protected heathland, Ashdown Forest, which consists of a matrix of open heath, ancient woodland, ghyll woodland and wetlands. Opportunities identified include: opportunities Identified: heathland management, restoration and creation, wetland habitat management, restoration and creation, woodland management and restoration, floodplain restoration and reconnection, ecological networks, exploring markets for natural products, policy integration, botanical interest, access improvements, water quality improvement, grazing management, education and community engagement, landowner advisory and agrienvironment schemes, and working with and attracting new businesses.

1.28 These BOAs will become relevant in this report when discussing the need and potential for delivering strategic off-site biodiversity offsetting for development, in order to meet the minimum 10% Biodiversity Net Gain objective enshrined inlaw.

#### **B-I** ines

1.29 B-lines are areas that are identified by BugLife<sup>26</sup> as areas containing opportunity to create habitat for the benefit of pollinators to encourage connectivity within and between habitats at a landscape scale. B-lines are present within the District. Plate 1 highlights the network across Lewes that has been designated as a B-line. The numbers shown on Plate 1 identify the location and number of B-Line projects.

PreparedFor: Lewes District Council

<sup>&</sup>lt;sup>26</sup> Available at <a href="https://www.buglife.org.uk/our-work/b-lines/">https://www.buglife.org.uk/our-work/b-lines/</a> [accessed 01/02/2023]

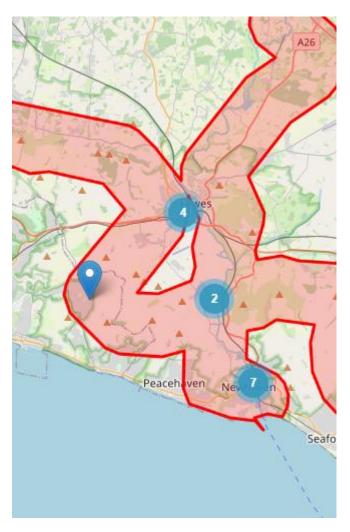


Plate 1 Lewes B-line areas<sup>27</sup>.

#### South Downs Way Ahead Nature Improvement Area<sup>28</sup>

- 1.30 The South Downs Way Ahead Nature Improvement Area (NIA) is a scheme to protect wildlife habitats and the environmental, economic and social benefits they bring. This project aims to protect and enhance chalk downland habitat by working with a wide range of people and organisations.
- 1.31 South Downs National Park Authority are improving areas of chalk grassland in and around Lewes through conservation grazing by sheep. They are planning a series of events to engage with the local communities and promote the social, health and wellbeing benefits to be gained from the natural habitats of the South Downs.

#### Wilder Ouse<sup>29</sup>

1.32 The Wilder Ouse project is a catchment scale project to restore natural processes and create a robust Nature Recovery Network, with restored ecological connectivity, ecosystem function and climate resilience through nature-based solutions at the catchment scale. Previously the project was known as the Sussex Flow Initiative<sup>30</sup> which was a partnership between the Woodland Trust,

<sup>&</sup>lt;sup>27</sup> Taken from <u>B-Lines - BugLife</u> [accessed 028/02/2023]

<sup>&</sup>lt;sup>28</sup> Available at [ARCHIVED CONTENT] South Downs Way Ahead Nature Improvement Area (nationalarchives.gov.uk)

<sup>[</sup>accessed 19/05/2023]

<sup>29</sup> Available at Wilder Ouse | Sussex Wildlife Trust [accessed 19/05/20230

<sup>&</sup>lt;sup>30</sup> Available at Sussex Flow Initiative [accessed 19/05/2023]

Sussex Wildlife Trust and the Environment Agency, supported by Lewes District Council. The Wilder Ouse project builds on the Sussex Flow Initiative.

- 1.33 The Wilder Ouse project works with landowners, farmers, communities, Parish Councils and other organisation to benefit wildlife. It is Its objectives are to:
  - Deliver nature-based solutions that help wildlife to thrive across the Ouse catchment.
  - Create networks of land that are protected and enhanced for wildlife, to allow habitats to expand and for wildlife to increase, which will ensure that they are resilient to change.
  - Increase awareness of actions that communities can take to improve their natural environment and the benefits that wildlife provides.
  - Maximise the opportunities that protecting and enhancing wildlife brings for climate change mitigation and adaptation.

#### **Natural England Seaford to Eastbourne Nature Recovery Project**

The Seaford to Eastbourne Nature Recovery Project (NRP) is one of six landscape scale NRPs launched in 2023 by Natural England and the government<sup>31</sup>. This NRP covers the eastern end of the SDNP to Beachy Head MCZ.

The project champions the importance of healthy chalk grass and chalk heath habitats to maximise deep soil moisture and water infiltration, using natural processes to deliver sustainable, clean water to the local towns.

1.34 A key part of the project is the extension of the NNR at Lullington Heath and the restoration of a mosaic of habitats across this varied landscape. Such habitats will play an essential role in the resilience of the area to the effects of climate change whilst also providing a basis for species recovery (initial focus will be the Rare Wart-biter bush cricket (*Decticus verrucivorus*) and the Short-snouted Seahorse (*Hippocampus hippocampus*)).

# Mapping a Nature Recovery Network in Sussex at the District Level<sup>32</sup>

- 1.35 The Sussex Nature Partnership (funded by Natural England) is working with stakeholders to develop spatial/ strategic mapping of potential nature recovery networks at a district level. It also aims to identify a process for moving from a 'strategic' map to a 'delivery' map, to guide future action and investment in nature.
- 1.36 The project has to date produced a Core Areas map that shows key wildlife land parcels; this includes rivers, designated sites (SSSI and LWSs), S41 Habitats 'Assets at Risk (NCIS), ancient woodland and S41 Habitats<sup>33</sup>.
- 1.37 A study by the SDNP in 2019<sup>34</sup> also identified a number of priority areas for investment in natural capital. Including the 'Lewes Connections' Investment Area.

<sup>31 &</sup>lt;u>Seaford to Eastbourne Nature Recovery Project launches - GOV.UK (www.gov.uk)</u> [accessed 23/11/23]

<sup>&</sup>lt;sup>32</sup> Available at <u>7.-NRN-Mapping-Project Main-Report 220421.pdf (sussexInp.org.uk)</u> [accessed 01/02/2023]

<sup>&</sup>lt;sup>33</sup> Available at 7.-NRN-Mapping-Project Main-Report 220421.pdf (sussexInp.org.uk) [accessed 01/02/2023]

<sup>&</sup>lt;sup>34</sup> Available at PANN-Actions-Evidence-Report 2020 FINAL.pdf (southdowns.gov.uk) [accessed 11/08/2023]

These areas have been identified to address deficits in greenspace provision, improve connectivity between greenspaces and address urban edge pressures built to do so in a way that supports sustainable and healthy communities, strengthens natural and cultural heritage and builds resilience to the effects of climate change. This analysis also anticipates potential development pressure.

- 1.38 In 2019, Lewes District Council committed to reduce council greenhouse gas emissions to net zero and to become fully 'climate resilient' by 2030 and to address the ecological disaster (Feb 2021). Meaningful biodiverse and nature-based solutions are at the heart of these ambitions. As a result, Lewes' Biodiversity Strategy 2021 2025<sup>35</sup> was published.
- 1.39 Emerging legislative drivers, namely the UK Government's long-anticipated Environment Act<sup>36</sup>, alongside the Agricultural Act<sup>37</sup>, aim to provide a framework for the tangible recovery of our natural environment through a natural capital, ecosystems services and biodiversity net gain approach. Working alongside this idea the Lewes Biodiversity Strategy sets out principles, aims and actions to better tackle biodiversity loss and ecosystem degermation. These are under the six broad focal areas:
  - Collaboration through partnership working: The need for partnership and community involvement, including integrated working, to feasibly achieve tangible, meaningful and germane biodiversity aims at a local and landscape scale.
  - Preservation and enhancement of existing habitats: The need to genuinely protect and enhance existing biodiversity resources through biodiversity led management at a landscape scale including council owned assets, designated sites, buffer zones and corridors.
  - Create more and connect up: The need to achieve Nature Recovery Networks (NRNs) and Ecological Networks dedicating land specifically for biodiversityrich habitats and wild landscapes, by increasing and creating new and joining up fragmented islands of habitat, such as nature reserves.
  - Implementation of Biodiversity Net Gain within development management The need to accurately and transparently implement meaningful, measurable and appropriate biodiversity net gains in new developments – secured for the long term.
  - Promotion of biodiversity understanding council wide: The need for coherent and integrated understanding and due process to ensure current and future biodiversity duties are being meaningfully met.
  - Nature based solutions and ecosystem services: Nature based solutions (NBSs) demonstrate potential as cost-effective long-term interventions for flooding risks and land degradation and when delivered effectively can enhance the stocks of natural assets and the ecosystem services they provide.

<sup>&</sup>lt;sup>35</sup> Available at <u>Lewes Biodiversity Strategy - Appendix 1 (lewes-eastbourne.gov.uk)</u> [accessed 01/02/2023]

<sup>&</sup>lt;sup>36</sup> Available at Environment Act 2021 (legislation.gov.uk) [accessed 11/08/2023]

<sup>&</sup>lt;sup>37</sup> Available at Agriculture Act 2020 (legislation.gov.uk) [accessed 11/08/2023]

### The Sussex Local Wildlife Site Initiative

- 1.40 The Sussex Local Wildlife Sites Initiative<sup>38</sup> was established in 2018 and aims to establish and maintain a functioning Local Wildlife Sites system for Sussex, including the administrative counties of East Sussex & West Sussex and the unitary authority of Brighton & Hove (including Lewes District as a supporting authority). The ultimate aim of the Sussex Local Wildlife Sites Initiative is to conserve biodiversity.
- 1.41 The purpose of having a Local Wildlife Sites system is to ensure these important sites can:
  - be accurately represented in Local Plans;
  - be given due consideration in the planning & development process; and
  - receive targeted management advice & support.

## **Local Nature Recovery Strategy**

- 1.42 The Local Nature Recovery Strategy (LNRS) in the Lewes District plan area is being led by East Sussex County Council as the responsible authority, with Lewes District Council acting as a supporting authority.
- 1.43 This is a response to the government's ambition to prepare county scale spatial blueprint for where and how this nature recovery network can be created through improving, expanding and better connecting areas for wildlife. This LNRS processes was formally launched in July 2023. Once prepared, LNRSs will be used to help guide effort and resources locally to improve, expand and better connect habitats for nature<sup>39</sup>.

# **Relevant Wildlife Legislation**

- 1.44 The following legislation has been considered in respect of the Biodiversity Assessment:
  - The Wildlife and Countryside Act 1981 (as amended)40;
  - The Natural Environment and Rural Communities Act 200641;
  - The Conservation of Habitats and Species Regulations 2019 (as amended)<sup>42</sup>.
- 1.45 The relevance of this legislation is discussed in the following sub-sections.

## The Wildlife and Countryside Act 1981 (as amended)

- 1.46 The Wildlife and Countryside Act 1981 (as amended) ('the WCA') is the major domestic legal instrument for wildlife protection in the UK and is the primary means by which the following are implemented:
  - The Convention on the Conservation of European Wildlife and Natural Habitats ('the Bern Convention'); and

39 Available at Local Nature Recovery Strategies – Sussex Local Nature

Partnership (sussexInp.org.uk) [Accessed 22/11/23]

<sup>&</sup>lt;sup>38</sup> Available at <u>Sussex Local Wildlife Site Initiative (lws-sussex.org.uk)</u> [accessed 11/08/2023]

<sup>&</sup>lt;sup>40</sup> Her Majesty's Stationary Office (HMSO) (1981) Wildlife and Countryside Act 1981 (as amended) <sup>41</sup> HMSO (2006) Natural Environment and Rural Communities Act 2006

<sup>&</sup>lt;sup>42</sup> HMSO (2017) The Conservation of Habitats and Species Regulations 2017

- The Council Directive 79/409/EEC on the Conservation of Wild Birds ('the Bird Directive') (Ref 6-9) [although the UK is no longer in the European Union, the list of species and the requirements for their protection as set out in the Directive are still the basis for the protection of birds in UK law].
- 1.47 The main relevant provisions of the Act are the allowance for the protection of the most important habitats and species by designating SSSIs, a level of protection to all nesting wild birds and species and bird species under Schedule 1.

#### The Natural Environment and Rural Communities Act 2006

- 1.48 Section 41 of the Natural Environment and Rural Communities Act 2006 ('the NERC Act') requires the listing of habitats and species that are of principal importance for the conservation of biodiversity, including those that have been identified as priorities within the UK Biodiversity Action Plan (UK BAP).
- 1.49 The NERC Act requires that the Section 41 list be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act 'to have due regard' to the conservation of biodiversity when carrying out their normal functions.

# The Conservation of Habitats and Species Regulations 2017 (as amended)

- 1.50 The Conservation of Habitats and Species Regulations 2017 (as amended) transpose the requirements of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ('the Habitats Directive') into domestic legislation.
- 1.51 The Regulations identify European Protected Species (EPS) and various habitats of importance within the United Kingdom, with important sites for these habitats/species or both being designated as Special Areas of Conservation (SAC) and important sites for birds being designated as Special Protection Areas (SPAs). Any proposed development that may have a significant effect on a SAC or SPA should be assessed in relation to the site's 'conservation objectives' (i.e., the reasons for which the site is designated).
- 1.52 The Regulations also implement the species protection regime set out within the Habitats Directive, providing a clear legal basis for surveillance and monitoring of European Protected Species. Although the UK is no longer a member of the EU, these Regulations remain in place.

#### **Environment Act 2021**

- 1.53 The Environment Act 2021, published by the UK Government as the Environment Bill in October 2019 (Environment Bill, 2019), includes proposals to make biodiversity net gain (BNG) a mandatory requirement within the planning system in England. The biodiversity elements of the Act include:
  - Strengthened biodiversity duty;
  - Biodiversity net gain to ensure developments deliver at least 10% increase in biodiversity:
  - Local Nature Recovery Strategies to support a Nature Recovery Network;
  - Duty upon Local Authorities to consult on street tree felling;

- Strengthen woodland protection enforcement measures;
- Conservation Covenants;
- Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature:
- Prohibit larger UK businesses from using commodities associated with widescale deforestation; and
- Requires regulated businesses to establish a system of due diligence for each regulated commodity used in their supply chain.

# **Planning Policy**

## **National Planning Policy**

- 1.54 The National Planning Policy Framework (NPPF)43 was originally published on 27th March 2012 and detailed the Government's planning policies for England and how these are expected to be applied. The NPPF was then revised on the 24th July 2018, the 19th February 2019 and the 20th July 2021.
- 1.55 The NPPF stated the commitment of the UK Government to minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity.
- 1.56 It specifies the obligations that Local Authorities and the UK Government have regarding statutory designated sites and protected species under UK and international legislation and how this is to be delivered in the planning system.
- 1.57 Protected or notable habitats and species can be a material consideration in the planning system. Protected or notable habitats and species can be a material consideration in planning decisions and may therefore make some sites unsuitable for particular types of development. If development is permitted, mitigation measures may be required to avoid or minimise impacts on certain habitats and species, or where impact is unavoidable, compensation may be required.
- 1.58 The NPPF is clear that pursuing sustainable development includes moving from no net loss of biodiversity to achieving net gains for nature, and that a core principle for planning is that it should contribute to conserving and enhancing the natural environment and reducing pollution.

## **Local Planning Policy**

1.59 Relevant local planning policies for Lewes District Council are in Table 1.

<sup>43</sup> 

#### **Table 1: Local Planning Policy**

Document	Policy	Purpose

Plan Part 1. Joint Core Natural Strategy 2010-2030<sup>44</sup>

Landscape Character

- Lewes District Local Core Policy 10 1. The natural environment of the district, including landscape assets, biodiversity, geodiversity, priority Environment and habitats and species and statutory and locally designated sites, will be conserved and enhanced by:
  - Maintaining and where possible enhancing the natural, locally distinctive and heritage landscape qualities and characteristics of the district including hedgerows, ancient woodland and shaws, as informed by the East Sussex County Landscape Assessment and the Lewes District Landscape Capacity Study;
  - Ensuring that new development will not harm ii. nature conservation interests, unless the benefits of development at that location clearly outweigh the harm caused. In such cases appropriate mitigation and compensation will be required;
  - Maintaining and where possible enhancing local iii. including biodiversity resources through maintaining and improving wildlife corridors, ecological networks and avoiding habitat fragmentation in both rural and urban areas;
  - Working with neighbouring local authorities to contribute to the delivery of biodiversity improvements within the South Downs Wav Ahead Nature Improvement Area and the Brighton and Lewes Downs Biosphere Project, as well as other projects and partnerships that are established during the plan period.
  - 2. The highest priority will be given to the first purpose of the South Downs National Park and the integrity of European designated sites (SACs and SPAs) in and around Lewes District. Within and in the setting of the South Downs National Park, development will be resisted if it fails to conserve and appropriately enhance its rural, urban and historic landscape qualities, and its natural and scenic beauty, as informed by the South Downs Integrated Landscape Character Assessment.
  - 3. To ensure that the Ashdown Forest (SAC and SPA) is protected from recreational pressure, residential development that results in a net increase of one or more dwellings within 7km of the Ashdown Forest will be required to contribute to:
    - The provision of Suitable Alternative Natural Greenspaces (SANGs) at the ratio of 8 hectares per additional 1,000 residents; and
    - The implementation of an Ashdown Forest Strategic Access Management and Monitoring Strategy (SAMMS).

Until such a time that appropriate mitigation is delivered, development that results in a net increase of one or more dwellings within 7km of Ashdown Forest will be resisted. Applicants may consider mitigation solutions other than

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<sup>&</sup>lt;sup>44</sup> Available at Adopted Joint Core Strategy (lewes-eastbourne.gov.uk) 9accessed 13/09/20230

#### Document Policy Purpose

SANGs in order to bring forward residential development. Such solutions would need to be agreed with the District Council and Natural England.

4. Ensure that water quality is improved where necessary or maintained when appropriate (including during any construction process) and that watercourses (including groundwater flows) are protected from encroachment and adverse impacts in line with the objectives of the South East River Basin Management Plan. Where appropriate, the local planning authority will seek the enhancement and restoration of modified watercourses.

Lewes District Local Policy Delay Plan Part 2. Site Protection Allocations and Biodiversity Development Geodiversity Management Policies (February 2020)<sup>45</sup>

DM24: Development which would be likely to adversely affect a of designated Ramsar site, designated or candidate Special and Area of Conservation (SAC) or a classified or potential Special Protection Area (SPA) will only be permitted where adverse likely significant effects can be avoided and/or mitigated against. After avoidance and mitigation measures have been considered, where residual adverse likely significant effects arise, development will only be permitted if there is no alternative solution, there are imperative reasons of over-riding public interest that would justify the development and suitable compensation is provided.

Development proposals that result in a net increase of one or more dwellings within 7km of the Ashdown Forest will only be permitted where they comply with Core Policy 10(3) of the Local Plan Part 1. The requirement of Core Policy 10 (3i) can be fulfilled through a contribution towards the management and monitoring of the Suitable Alternative Natural Greenspace (SANG) at Newick, as defined on the Policies Map.

Development that would be likely to adversely affect a Site of Special Scientific Interest (SSSI), National Nature Reserve (NNR), or a Marine Conservation Zone (MCZ), either individually or in combination with other developments, will only be permitted where the benefits of the development in the location proposed clearly outweigh the damage to the nationally recognised special interest of the designated site and any adverse impacts on the wider network of SSSIs.

Development which would result in damage or loss to a site of biodiversity or geological value of regional or local importance including Local Nature Reserves (LNR), Wildlife Trust Reserves, Local Wildlife Sites, irreplaceable habitats, and habitats and species of principal importance for biodiversity, will only be permitted where the benefits of the development clearly outweigh the damage to the conservation interest of the site and any loss can be mitigated to achieve a net gain in biodiversity and/or geodiversity.

Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland or veteran trees) will be refused, unless there are wholly exceptional circumstances and a suitable compensation strategy exists.

Where development is permitted, the Council will use conditions and/or legal agreements in order to minimise

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<sup>&</sup>lt;sup>45</sup> Available at Local Plan Part 2 2020 (lewes-eastbourne.gov.uk) [accessed 13/09/2023]

Document	Policy	Purpose
		the damage, ensure adequate mitigation and site
		management measures and, where appropriate,
		compensatory and enhancement measures

# 2. Methodology

# **Biodiversity Assessment**

2.1 A set of 18 potential development parcels were provided to AECOM by Lewes District Council for assessment (4 potential strategic allocations and 14 surrounding settlements) to provide a holistic overview of potential land types and potential development sites that would be subject to a high-level Biodiversity Assessment. Note that this is not a list of allocated sites, as allocations had not been made at the time of assessment. Rather these sites were used as representative examples of where development could take place. These sites are listed in Table 2 and the locations are illustrated in Appendix A, Figure 1.

**Table 2: Potential Sites for Development Provided by Lewes District Council** 

Site Cluster	Total Site Area	
Land in between Plumpton Green and South Chailey	188ha	
Land North of Cooksbridge	78.6ha	
Land North of Ringmer	57.7ha	
Land at Howells Bank Farm	16ha	
Seaford	n/a	
Newhaven	n/a	
Peacehaven & Telscombe Cliffs	n/a	
Barcombe Cross	n/a	
Broyle Side	n/a	
Chailey	n/a	
Cooksbridge	n/a	
Newick	n/a	
North Chailey	n/a	
Plumpton Green	n/a	
Ringmer	n/a	
South Chailey	n/a	

South Street n/a

Wivelsfield and Wivelsfield Green

n/a

- 2.2 These eighteen land-parcels were subject to a desktop study to undertake a Biodiversity Assessment. The area of each land parcel assessed is defined as land outside of the settlement boundary, immediately adjacent to the settlement boundary and up to two fields away (as such the boundary area will be variable due to the size of the fields surrounding the settlement). If a single very large field was present a second field beyond was not considered. Equally, where a very small field was present, additional land would have been considered. This was subjective and at the assessor's discretion. The desk top study undertaken was to identify any constraints and opportunities (such as enhancement and connectivity) of each land parcel.
- 2.3 Resources used to undertake the assessment are as follows:
  - Sussex Biodiversity Records Centre (it should be noted that absence of evidence is not evidence of absence. The results here are made up of historic records and do not take into account that some sites will be under recorded.)
  - Multi-Agency Geographic Information for the Countryside (MAGIC)<sup>46</sup>
  - Google (Aerial imagery)
  - Department for Environment Food and Rural Affairs (DEFRA)<sup>47</sup>, open-source habitat data
  - Natural England: Living England Map<sup>48</sup>
  - Lewes Open Space Strategy<sup>49</sup>
  - Sussex Nature Partnership: Local Nature Recovery Strategies<sup>50</sup>.
  - Nature recovery network within Sussex at a District level<sup>51</sup>.
  - Great Crested Newt Impact Risk Zone. As part of the District Level licencing scheme<sup>52</sup>, mapping<sup>53</sup> has been produced to show where great crested newts are likely to live and the most important areas to conserve. There are five risk zones under the Natural England district level licensing scheme:
    - Black nationally or regionally important site for great crested newt excluded from the scheme:
    - Red highly suitable habitat the most important areas for great crested newt;
    - Amber suitable habitat great crested newt likely to be present;

<sup>46</sup> https://magic.defra.gov.uk/ [accessed 01/02/2023]

<sup>&</sup>lt;sup>47</sup> Defra Data Services Platform [accessed 01/02/2023]

<sup>&</sup>lt;sup>48</sup> Living England Habitat Map (Phase 4) - data.gov.uk [accessed 01/02/2023]

<sup>&</sup>lt;sup>49</sup> Available at: https://www.lewes-eastbourne.gov.uk/ resources/assets/inline/full/0/258527.pdf Lewes background reports Lewes and Eastbourne Councils (lewes-eastbourne.gov.uk) [accessed 01/02/2023]

Local Nature Recovery Strategies - Sussex Local Nature Partnership (sussexInp.org.uk) [accessed 01/02/2023]

<sup>&</sup>lt;sup>51</sup> Available at: 7.-NRN-Mapping-Project Main-Report 220421.pdf (sussexInp.org.uk) [accessed 01/02/2023]

<sup>&</sup>lt;sup>52</sup> Great crested newts: district level licensing for local planning authorities - GOV.UK (www.gov.uk) [accessed 01/02/2023]

<sup>53</sup> Impact Maps - NatureSpace Partnership (naturespaceuk.com) [accessed 01/02/2023]

- Green moderate habitat suitability great crested newt may be present; and,
- White low habitat suitability low probability of great crested newt presence.

## **Biodiversity Net Gain**

## **Biodiversity Net Gain Typologies**

- 2.4 A Biodiversity Net Gain (BNG) assessment involves making a comparison between the biodiversity value of habitats present within a site/ land parcel prior to development (i.e., the 'baseline') and the predicted biodiversity value of habitats following the completion of the development (i.e., 'post-development'). The comparison is made in terms of 'biodiversity units', with a 'biodiversity metric' providing the mechanism to allow biodiversity values to be calculated and compared.
- 2.5 Biodiversity Metrices calculate the overall loss or gain of biodiversity of development projects by assessing the distinctiveness (i.e., type of habitat and its value), condition, extent, and strategic significance of habitats on site pre- and post-development, including both permanent and temporary land-take areas. To achieve biodiversity net gain, the biodiversity unit score must have a post-development score higher than the baseline score.
- 2.6 When calculating the post-development biodiversity units, the metric includes a series of standard 'risk multipliers' to account for the inherent risk of creating and restoring habitats, the time taken to establish habitats and the location of the mitigation in relation to the habitats lost on site. The risk multipliers have the effect of reducing the value of the proposed habitats, which means larger areas, habitats of higher distinctiveness, and/or condition are required to mitigate for losses and achieve net gain.
- 2.7 The metric assesses and generates separate outputs for area-based habitats<sup>54</sup> (measured in habitat units) and linear based habitats, including hedgerows (measured in hedgerow units) and rivers (measured in river units) where appropriate. To claim a net gain in biodiversity, there must be an increase across all habitats, hedgerow and river units, the units cannot be summed to give an overall biodiversity unit value i.e., an increase in habitat and hedgerow units cannot be used to offset a loss in river units.
- 2.8 This assessment was undertaken using Biodiversity Metric 3.1<sup>55</sup>. Subsequent to the assessment being undertaken Biodiversity Metric 4.0 was published in March 2023<sup>56</sup>. According to Natural England, the Biodiversity Metric 4.0 is a substantial update to previous versions of the metric. However, the majority of changes are focused on providing an enhanced user experience and are unlikely to have significant impact on the range of outputs generated.
- 2.9 To support the development of the new Local Plan by enabling the Council to determine a broad strategic BNG requirement, different typologies of

<sup>&</sup>lt;sup>54</sup> This includes all area-based terrestrial and intertidal habitats. All habitats from the low water mark to the high-water mark can and should be assessed using Metric 3.1 where they are impacted by development. Any marine habitats beyond the low water mark cannot be assessed using Metric 3.1.

<sup>&</sup>lt;sup>55</sup> Available at: <u>The Biodiversity Metric 3.1 - JP039 (naturalengland.org.uk)</u> [accessed 22/09/2022]

<sup>&</sup>lt;sup>56</sup> Available at The Biodiversity Metric 4.0 - JP039 (naturalengland.org.uk) [accessed 09/05/2023]

development site have been developed. To do this, AECOM made reference to work undertaken by Kent County Council (KCC) to inform viability assessments of the implications of seeking various levels of Biodiversity Net Gain (10%, 15% and 20%)<sup>57</sup>. To aid that exercise, KCC produced a series of development 'typologies'. These were generic types of expected development from a small housing site to a large housing site and from a small industrial site to a large industrial site. KCC then undertook hypothetical assessments of those sites. This enabled them to take account of the fact that full formal Biodiversity Net Gain calculations require a great deal of information concerning the existing biodiversity of the site and the precise details of how the development of the site it to be accomplished and laid out.

2.10 For the Lewes exercise, seven typologies have been developed to broadly represent habitats present within the Lewes District Boundary and types of development expected to come forward over the Local Plan period.

#### 2.11 The seven typologies are:

- a) Small greenfield residential: a greenfield site of c. 1 ha in size, with potential to deliver c 35 dwellings.
- b) Medium greenfield residential: a greenfield site of c. 6 ha in size. with potential to deliver c. 100 homes within 4 ha. of the site.
- c) Large greenfield residential: a greenfield site of c. 12 ha in size. with potential to deliver c. 160 homes within c. 5 ha of the site.
- d) Small brownfield residential: a brownfield site of c. 2.0 ha in size allocated to deliver c. 60 dwellings.
- e) Large brownfield residential: a brownfield site of c 5 ha in size with the potential to deliver c. 200 dwellings. 1 ha of the site will be retained for habitat enhancements and green infrastructure.
- f) Offices (1000sqm): a previously developed site of c 0.3 ha in size allocated to deliver c. 1000sqm of office space.
- g) Large Housing/ mixed use: a predominantly greenfield site of c. 135 ha in size and is identified to potentially provide c.3000 net new dwellings, and mixed-use development (employment space of 30,000 sqm of: light industrial, office space, small-scale logistics (B8), retail leisure space: 3,400 sqm retail space and 500 sqm leisure space).

#### **Baseline Data**

2.12 Typically baseline habitat data in the form of UKHab Classification category is required following a site visit. However, detailed habitat surveys were not undertaken for any of the sites that the typologies were loosely based on, instead habitats typical to the areas of Lewes were used. These were determined from review of aerial mapping and imagery. Linear features such as ditches and hedgerows can significantly affect the BNG calculations. However, since there is no information at this stage regarding how linear features would be handled within any area assessed, it was considered that attempting to include them at this stage would further add to the assumptions needed without a site masterplan without adding much benefit to the broad analysis undertaken. They were not

<sup>&</sup>lt;sup>57</sup> https://kentnature.org.uk/wp-content/uploads/2022/07/Viability-Assessment-of-Biodiversity-Net-Gain-in-Kent-June-2022.pdf

- included in the assessment, only polygon habitat area, broadly following the Metric 3.1 guidance<sup>58</sup> and professional judgement.
- 2.13 All baseline habitats defined within the Site were assigned a condition using the condition assessment criteria outlined in the Biodiversity Metric 3.1 User Guide and Technical Supplement<sup>59</sup>. Similar to the habitat type data, no detailed surveys were undertaken so best judgement was used in defining the condition of each habitat. The data was aggregated and entered into the metric to calculate the baseline biodiversity units.

#### **Post-Development Data**

2.14 As no landscape or master plans were available for any of the typologies, it was assumed that for the small typology sites, all land would be lost and only off-site BNG provision would be viable. For the large typology sites, it was assumed that small portions of the sites would be available on-site for BNG provision. In some cases, off-site BNG requirements would also be required. At this early stage, no masterplan or landscape plans are available, and as such the exact target habitats are unknown. For ease of comparison, all typologies assumed that the post development target habitat would be 'grassland: other neutral grassland' in good condition, as this is a common habitat within Lewes and a relatively simple habitat to create. The data was utilised to predict the post development biodiversity units. For the actual BNG exercise for each planning application the BNG calculations, including selection of post-development target habitat, would need to be informed by full baseline surveys. However, this is not necessary for the purpose of creating typologies as they are intended to be relatively generic.

#### **Strategic Significance**

2.15 Metric 3.1 requires that the strategic significance (hereafter referred to as 'SS') of all baseline and post-development habitats be defined. SS refers to strategic locations for local biodiversity and nature improvements, identified within local planning policies. MAGIC and SxBRC data were interrogated to aid determination of SS.

#### **Caveats**

- 2.16 The BNG typology assessments undertaken for this report are effectively hypothetical because full BNG assessment requires detailed site survey information (including quality of habitats) and, in particular, requires the fullest level of detail regarding exactly what parts of the site are to be developed and how, and exactly what existing ecological features are to be removed and new features to be created. The purpose of the exercise was to obtain an indication of the likely expected amount of off-site BNG provision that Lewes District Council may require over the Local Plan period. These calculations are therefore not appropriate to be used to accompany planning applications even when potential allocated sites have been used as the broad template for the calculation.
- 2.17 For the purposes of this broad assessment, linear features (such as hedgerows and ditches) are not included in this assessment.
- 2.18 For ease of comparison, all typologies assumed that the post development target habitat would be 'grassland: other neutral grassland' in 'good' condition. This is because a higher distinctiveness habitat would require a greater amount of land

<sup>&</sup>lt;sup>58</sup> Natural England (2022). The Biodiversity Metric 3.1 – User Guide & Technical Supplement

<sup>&</sup>lt;sup>59</sup> Available at: <u>The Biodiversity Metric 3.1 - JP039 (naturalengland.org.uk)</u> [accessed 22/09/2022]

- area to deliver, as the metric factors in risks such as difficulty of creation and time until target condition. The data were utilised to predict the post development biodiversity units.
- 2.19 The formal BNG method, to be acceptable for grant of planning consent, is not simply a matter of calculating credits. There are also a series of Trading Rules with which developers must comply. The trading rules within the metric are a set of rules that try to prevent the 'trading down' of habitat distinctiveness. Under the trading rules losses of habitat are to be compensated for on a "like for like" or "like for better" basis. Because the development sites are being used as typologies, and to keep the off-site BNG requirement calculations simple, the trading rules have not been used strictly in this assessment; rather the overall BNG offsetting units were used to broadly determine the overall amount of offsetting land that might be required off-site.
- 2.20 Protected and notable species are not reflected in the BNG metric. Habitats created or enhanced specifically for protected and notable species are not included in the typologies.

## **BNG Input to a Viability Assessment**

- 2.21 This study provides inputs to be used by the Council's viability consultants, rather than bringing viability work into the scope of the biodiversity study.
- 2.22 In order to estimate costs for delivery of BNG for each of the previously identified typologies on-site, costs per hectare were applied to the habitat creation, management and monitoring requirements over an assumed 30-year period, outlined in the net gain calculations. This required identifying appropriate cost values for the necessary activities and capital costs to deliver these habitat outcomes (land take costs were not included here as these will be covered within the viability assessment itself). Costs were derived through an examination of previous research into habitat creation costs, including Defra Impact Assessment and the supporting 'Assessing the Cost of Environmental Land Management in the UK' report. Costs are highly variable and will be influenced by a range of currently unknown factors.

## **Areas of Potential BNG Land Provision within Lewes**

- 2.23 A desk-based study was undertaken to identify areas where habitats and key wildlife corridors could be enhanced in Lewes District to maximise habitat connectivity across the district and with the National Park and to identify appropriate locations for habitat banking.
- 2.24 On the basis that sites which are 'blank slate' rather than existing nature reserves or areas of high biodiversity value will present the greatest BNG potential, the study started by looking at suitable land within either Lewes District Council or East Sussex Council ownership, since such land would already be within public sector control. However, it was confirmed there weren't any such land parcels of significance that weren't already being considered for development or other uses. The study therefore then moved onto private sector land. With the exception of a single LAA Site put forward for green infrastructure it was decided to look at sites that had been identified as being not suitable for residential or employment development in either the 2018 or 2022 LAA exercises, since the

landowner of such sites has already expressed an interest in contributing those for some purpose other than existing use.

# 3. Results

# **Biodiversity Assessment**

3.1 This section provides the Biodiversity Assessment of land parcels put forward by the Council as potentially to be identified for allocation. These are split into two categories: Potential Strategic Allocations and Surrounding Settlements.

### Potential Strategic Allocations:

- Land in between Plumpton Green and South Chailey (11EC)
- Land North of Cooksbridge (19HY (incl. 11HY))
- Land North of Ringmer (51RG)
- Land at Howells Bank Farm (67RG)

#### Surrounding Settlements:

- Seaford
- Newhaven
- Peacehaven & Telscombe Cliffs
- Barcombe Cross
- Broyle Side
- Chailey
- Cooksbridge
- Newick
- North Chailey
- Plumpton Green
- Ringmer
- South Chailey
- South Street
- Wivelsfield and Wivelsfield Green
- 3.2 The following sections provide results of the Biodiversity Assessment including details of potential constraints and opportunities. The site information detailed below has been provided to AECOM from Lewes District Council, all data are indicative until Local Plan allocations have been made.

# **Potential Strategic Allocations:**

# Land in Between Plumpton Green and South Chailey (11EC) 3.3

3.4 Table 3 provides the Biodiversity Assessment for Land in between Plumpton Green and South Chailey. An inset of the potential site is shown overleaf.

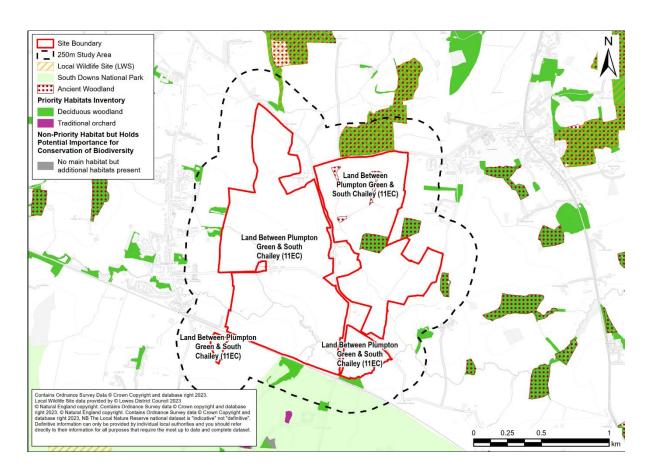


Table 3. Land in Between Plumpton Green and South Chailey Biodiversity Assessment

Parameter	Detail
Size (ha)	188 ha
Indicative Quantum of Development <sup>60</sup>	3000 dwellings; 30,000sqm employment space (light industrial / office / small scale logistics); 3,400sqm retail space; 500sqm leisure space.
	The site includes Priority habitat: ancient woodland (an irreplaceable habitat), deciduous woodland, hedgerows.
Priority Species for Countryside Stewardship Targeting	Brown Hairstreak Lapwing
Site Designations	The site does not fall within or include any designated site, however it is immediately adjacent to the SDNP.
	Birds: Species records for birds listed on the Birds Directive were not present. Nine species are designated under NERC S41, Yellowhammer ( <i>Emberiza citronella</i> ), Eurasian Bullfinch ( <i>Pyrrhula pyrrhula</i> ), Dunnock ( <i>Prunella modularis</i> ), Turtle Dove ( <i>Streptopelia turtur</i> ), Cuckoo ( <i>Cuculus canorus</i> ), European Skylark ( <i>Alauda arvensis</i> ), Common Linnet

<sup>60</sup> Provided by Lewes District Council

<sup>&</sup>lt;sup>61</sup> Details provided by Sussex Biodiversity Records Centre

Parameter	Detail
	(Linaria cannabina), House sparrow (Passer domesticus), Song Thrush (Turdus philomelo). Three birds are listed on the birds of concern red list, Common Nightingale (Luscinia megarhynchos), Common House Martin (Delichon urbicum), Common Starling (Sturnus vulgaris).
	<u>Plants</u> : One recorded plant is designated under the W&CA, Bluebell ( <i>Hyacinthoides non-scripta</i> ).
	<u>Invasive Species</u> : One recorded species is designated under the W&CA Sch. 9, Three-Cornered Leek ( <i>Allium triquetrum</i> ).
	Amphibians: One recorded species is designated under the W&CA, Common Toad ( <i>Bufo bufo</i> ).
	<u>Fish</u> : One recorded species is designated under NERC S41, Brown Trout ( <i>Salmo Trutta</i> ).
	<u>Bats</u> : Two protected species were recorded, Common Pipistrelle ( <i>Pipistrellus pipistrellus</i> ) and Brown Long-eared bat ( <i>Plecotus auratus</i> ).
	<u>Invertebrates</u> : One recorded species is designated under NERC S41, Small Heath Butterfly ( <i>Coenonympha pamphilus</i> ).
Review of Aerial Images	Appears to consist of farmland (both arable and pasture), separated into fields by hedgerows and watercourses. Aerial imagery shows that the site contains one area of deciduous woodland with other woodland areas adjacent to the site.
	Part of the site falls within an area of high wetland habitat potential.
Great Crested Newt Impact Risk Zone	Green up to Red.
Other Constraints from Desk Study	None.
BNG Opportunities	Depending on the quality of the existing habitats within the site, this site could potentially be enhanced to provide BNG provision.
Other Opportunities	Potential to target Priority Species for Countryside Stewardship Targeting: Brown Hairstreak and Lapwing. There is also the potential to link up woodlands and other habitats present both within the site and those linking into the wider area surrounding the site.

3.5 This site is potentially suitable to be utilised as a development site. The site is not part of any protected or designated areas. Existing mapping shows the presence of ancient woodland (an irreplaceable habitat) present within the site. As an S41 habitat due consideration must be given during future planning for the site. Planning decisions should consider avoiding and reducing impacts (both

direct and indirect) on ancient woodland<sup>62</sup>. A development should not result in the loss or deterioration of ancient woodland except in exceptional circumstances and where there is a suitable compensation strategy in place. To avoid impacts on ancient woodland a buffer zone of at least 15m (the size of the buffer zone will vary depending on: the scale of the development, and the character of the surrounding area) from the boundary of the woodland must be maintained to avoid root damage (known as the root protection area). In addition, aerial photography indicates that hedgerows appear to be present on site. These would also constitute a S41 habitat and thus be given due consideration. In addition, the site is immediately adjacent to the SDNP, so consideration for this will be required during future planning with the site. Depending on the habitat quality within the site, waterbodies present could also potentially be S41 habitats, however a detailed survey would be required to determine this.

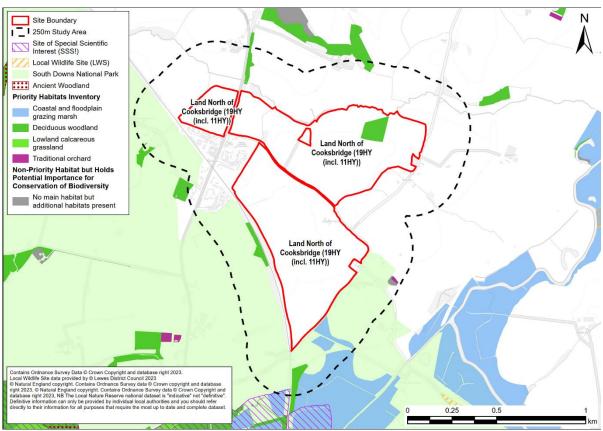
3.6 The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy. This may include a reduction in the number of units deliverable within the site. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment. However, full protected species surveys would be required in any event to support a planning application.

# **Opportunities**

3.7 The site primarily consists of arable land. This site (or part thereof) could potentially be enhanced to provide BNG provision on site. Due to the often lower quality habitat provided by arable farmland, enhancements within the site should be viable. There is also the potential to link up woodlands and other habitats present both within the site and those linking into the wider area surrounding the site.

# Land North of Cooksbridge (19HY (incl. 11HY))

3.8 Table 4 provides the Biodiversity Assessment for Land North of Cooksbridge. A map of the potential site is below.



**Table 4. Land North of Cooksbridge Biodiversity Assessment** 

Parameter	Detail
Size (ha)	78.6 ha
Developable Area (ha) <sup>63</sup>	47.2 ha (40% of site to be open space)
Indicative Quantum of Development <sup>64</sup>	950 dwellings
Priority Habitats (NERC S41 habitat) identified on MAGIC	None identified
Priority Species for Countryside Stewardship Targeting	Lapwing Common Cuckoo
Site Designations	Site does not include any land that falls within a protected area
Notable Species	<u>Birds</u> : Two recorded species are listed in the Birds Directive Red Kite (Milvus milvus), Kingfisher ( <i>Alcedo atthis</i> ). Two recorded species are designated under the W&CA, Barn Owl

(Tyto alba), Hobby (Falco subbuteo). Six species are

designated under NERC S41, Common Cuckoo (Cuculus canorus), Turtle Dove (Streptopelia turtur), Marsh Tit (Poecile

PreparedFor: Lewes District Council

Site<sup>65</sup>

<sup>&</sup>lt;sup>63</sup> Provided by Lewes District Council

<sup>&</sup>lt;sup>64</sup> Provided by Lewes District Council

<sup>&</sup>lt;sup>65</sup> Details provided by Sussex Biodiversity Records Centre

Parameter	Detail
	palustri), House Sparrow (Passer domesticus), Tree Sparrow (Passer montanus), Dunnock (Prunella modularis), Three recorded species are on the birds of conservation concern red list including Starling (Sturnus vulgaris) and Mistle Thrush (Turdus philomelos).
	<u>Invasive Species</u> : One recorded species is designated under the W&CA Sch. 9, Ring Nosed Parakeet ( <i>Psittacula krameri</i> ).
	Amphibians: Two recorded species are designated, Common Frog ( <i>Rana tempraria</i> ), Grass Snake ( <i>Natrix helvetica</i> ).
	<u>Bats</u> : Two recorded species Common Pipistrelle ( <i>Pipistrellus pipistrellus</i> ) and Brown Long-eared bat ( <i>Plecotus auratus</i> ).
	Mammals: One species is designated under NERC S41, European Hedgehog (Erinaceus europaeus).
	<u>Invertebrates</u> : One species is designated under NERC S41, Wall Brown ( <i>Lasiommata megera</i> ).
Review of Aerial Images	The site appears to consist primarily of arable farmland. There are some hedges and isolated trees within the area.
	A small area of the site is an area of High Wetland Habitat Potential.
GCN Impact Risk Zone	Up to Amber
Other Constraints From Desk Study	None
BNG Opportunities	Depending on the quality of the existing habitats within the site, this site could potentially be enhanced to provide BNG provision.
Other Opportunities	Potential to target Priority Species for Countryside Stewardship Targeting; Lapwing and Common Cuckoo. There is also the potential to link up habitats present both within the site and those linking into the wider area surrounding the site.

- 3.9 This site is more suitable to be utilised as a development site. The site is not part of any protected or designated areas. Existing mapping does not show any S41 habitats present on site. However, aerial photography indicates that hedgerows appear to be present on site. These would constitute a S41 habitat and must be given due consideration in future planning. In addition, a small area of the site is an area of High Wetland Habitat Potential which would require consideration during any future planning on site. Depending on the habitat quality within the site, any waterbodies present could also potentially be S41 habitats, however a detailed survey would be required to determine this.
- 3.10 The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable

consideration in the master-planning and ecological avoidance and mitigation strategy. This may include a reduction in the number of units deliverable within the site. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment. However, full protected species surveys would be required in any event to support a planning application.

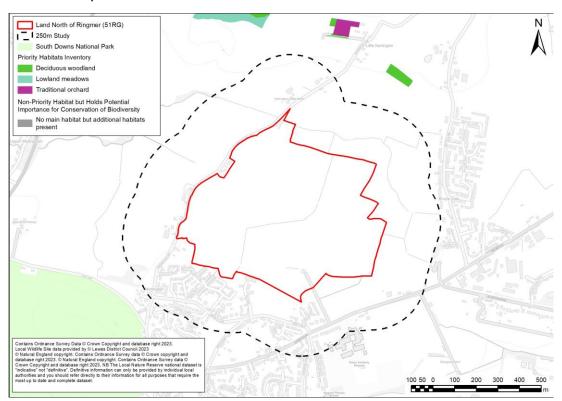
# **Opportunities**

3.11 The site primarily consists of arable land. This site (or part thereof) could potentially be enhanced to provide BNG provision on site. Due to the often low quality of habitat provided by arable farmland enhancements within the site should be viable. There is also the potential to link up habitats present both within the site and those linking into the wider area surrounding the site.

# Land North of Ringmer (51RG)

3.12

3.13 Table 5 provides the Biodiversity Assessment for Land North of Ringmer. A map of the potential site is shown overleaf.



**Table 5. Land North of Ringmer Biodiversity Assessment** 

Parameter	Detail
Size (ha)	57.7 ha
Indicative Quantum of Development	900 dwellings
Priority Habitats (NERC S41 habitat) identified on MAGIC	None identified

Parameter	Detail
Priority Species for Countryside Stewardship Targeting	None identified
Site Designations	Site does not contain any land that falls within a protected area.
Notable Species	<u>Birds</u> : One species is listed in the Birds Directive Annex 1, Red Kite ( <i>Milvus milvus</i> ). One species is designated under Schedule 1 Part 1 of the W&CA, Barn Owl ( <i>Tyto alba</i> ). Three species are listed under NERC S41, Dunnock ( <i>Prunella modularis</i> ), House sparrow ( <i>Passer domesticus</i> ), Song Thrush ( <i>Turdus philomelos</i> ). Four species are on the birds of conservation concern red list Starling ( <i>Sturnus vulgaris</i> ), Yellowhammer ( <i>Emberiza citrinella</i> ), Stock Dove ( <i>Columba oenas</i> ), Kestrel ( <i>Falco tinnunculus</i> ), Barn swallow ( <i>Hirundo rustica</i> ).
	<u>Invertebrates</u> : Common Darter ( <i>Sympetrum striolatum</i> ), A True Beetle ( <i>Cetonia aurata</i> ), Horse Chestnut Leaf Miner ( <i>Cameraria ohridella</i> ), Wild Strawberry ( <i>Fragaria vesca</i> ),
	Plants: One plant is designated under the W&CA, Common Bluebell ( <i>Hyacinthoides non-scripta</i> ).  Invasive Species: Three recorded species are designated under the W&CA Sch. 9, Himalayan Balsam ( <i>Impatiens glandulifera</i> ), Variagated Yellow Archangel ( <i>Lamiastrum galeobdolon subsp. argentatum</i> ), Parrot's Feather ( <i>Myriophyllum aquaticum</i> ).
	From review of aerial imagery, the site appears to include arable land and hedgerows. There appear to be isolated trees present within one of the fields.
	Part of the site is within the B-line project target area established by BugLife
Gcn Impact Risk Zone	Up to Amber
Other Constraints From Desk Study	None

#### **BNG Opportunities**

Depending on the quality of the existing habitats within the site, this site could potentially be enhanced to provide BNG provision. There is also the potential to link up habitats present both within the site and those linking into the wider area surrounding the site.

#### **Constraints**

3.14 This site is more suitable to be utilised as a development site. The site is not part of any protected or designated areas. Existing mapping does not show any S41

<sup>&</sup>lt;sup>66</sup> Details provided by Sussex Biodiversity Records Centre

habitats present on site. However, aerial photography indicates that hedgerows appear to be present on site. These would constitute a S41 habitat and must be given due consideration in future planning. Depending on the habitat quality within the site, any waterbodies present could also potentially be S41 habitats, however a detailed survey would be required to determine this.

3.15 The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy. This may include a reduction in the number of units deliverable within the site. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment. However, full protected species surveys would be required in any event to support a planning application.

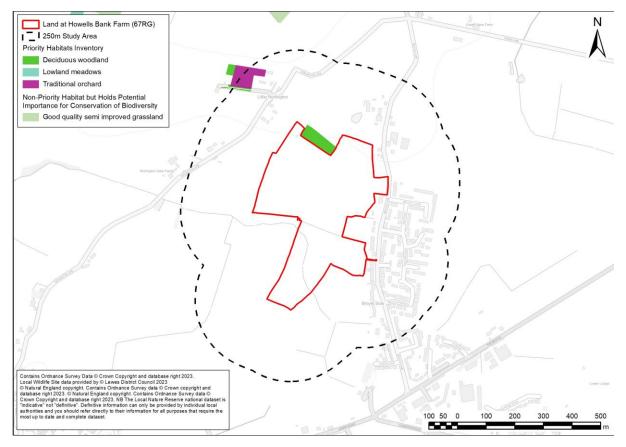
# **Opportunities**

3.16 The site primarily consists of arable land. This site (or part thereof) could potentially be enhanced to provide BNG provision on site. Due to the often low quality of habitat provided by arable farmland enhancements within the site should be viable. There is also the potential to link up habitats present both within the site and those linking into the wider area surrounding the site.

# Land at Howells Bank Farm (67RG)

3.17

3.18 Table 6 provides the Biodiversity Assessment for Land at Howells Bank Farm. A map of the potential site is shown below.



**Table 6. Land at Howells Bank Farm Biodiversity Assessment** 

Parameter	Detail
Size (ha)	16 ha
Indicative Quantum of Development <sup>67</sup>	140 dwellings
	The site is not known to include any priority habitat. The site is bordered by a small area of deciduous woodland in the north.
Priority Species for Countryside Stewardship Targeting	None identified
Site Designations	None identified
Protected and Notable Species Within c.50m of the Site <sup>68</sup>	Species data within the site identifies only a single species Common Darter ( <i>Sympetrum striolatum</i> )
Review of Aerial Imagery	From review of aerial imagery, the site appears to include arable land and hedgerows. There appear to be isolated trees present within one of the fields.
	Part of the site is within the B-line project target area established by BugLife
GCN Impact Risk Zone	Amber to Red
Other Constraints From Desk Study	None
BNG Opportunities	Depending on the quality of the existing habitats within the site, this site could potentially be enhanced to provide BNG provision. There is also the potential to link up habitats present both within the site and those linking into the wider area surrounding the site.

- 3.19 This site is more suitable to be utilised as a development site. The site is not part of any protected or designated areas. Existing mapping does not show any S41 habitats present on site. However, aerial photography indicates that hedgerows appear to be present on site. These would constitute a S41 habitat and must be given due consideration in future planning. Depending on the habitat quality within the site, any waterbodies present could also potentially be S41 habitats, however a detailed survey would be required to determine this.
- 3.20 A single protected species record was returned from the records centre, which is likely due to a lack of protected species records. Given the high-level nature of this study protected/notable species may be present and could impact the

<sup>&</sup>lt;sup>67</sup> Provided by Lewes District Council

<sup>&</sup>lt;sup>68</sup> Details provided by Sussex Biodiversity Records Centre

assessment. Bespoke protected species surveys would be required in any event to support a planning application.

#### **Opportunities**

3.21 The site primarily consists of arable land. This site (or part thereof) could potentially be enhanced to provide BNG provision on site. Due to the often low quality of habitat provided by arable farmland enhancements within the site should be viable. There is also the potential to link up habitats present both within the site and those linking into the wider area surrounding the site.

# **Land Surrounding Settlements**

#### **Land at Seaford**

3.22

3.23 Table 7 provides the Biodiversity Assessment for Land surrlandounding Seaford. A map of the area is also shown overleaf.

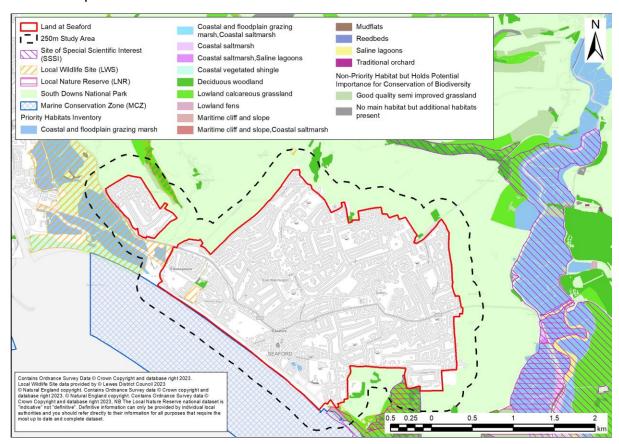


Table 7. Land at Seaford Biodiversity Assessment

Parameter	Detail	
Size (ha)	NA	
Developable Area (ha) NA		
Indicative Quantum of NA Development		

**Parameter** Detail

Habitats Maritime cliff and slope Priority (NERC S41 habitat) Deciduous woodland

identified on MAGIC Lowland calcareous grassland

Coastal and floodplain grazing marsh

Saline lagoons

Coastal vegetated shingle

for Brown Hairstreak Priority **Species** Countryside Corn Bunting Stewardship Targeting Lapwing

Redshank

**SDNP** Site Designations

> Brighton and Lewes Downs Biosphere Reserve Lewes Brooks and the Ouse Valley BOA (BOA)

Seaford to Eastbourne Downs BOA

Seaford to Beachy Head Site of Special Scientific Interest (SSSI) designated for biological importance with a range of habitats that support nationally rare, nationally scarce and nationally significant plants, invertebrates and birds.

Old Brickfield Local Wildlife Site (LWS)

Tide Mills LWS

Blatchington Reservoir LWS Bishopstone downs LWS **Denton Hill Downs LWS** Seaford head LWS Seaford head LNR

Beachy Head West Marine Conservation Zone (MCZ)

of the Site<sup>69</sup>

Protected and Notable Birds: No species are listed in the Birds Directive Annex 1.3 Species Within c.50m species are listed on Schedule 1 Part 1 of the Wildlife and Countryside Act, Common Scoter (Melanitta nigra), Barn Owl (Tyto alba), Bee-eater (Merops apiaster). 9 species are listed under NERC S41 including Dunnock (Prunella modularis), Ring Ouzel (Turdus torquatus) and Skylark (Alauda arvensis). 7 species are on the birds of conservation concern red list including Lapwing (Vanellus vanellus), Linnett (Linaria cannabina) and Starling (Sturnus vulgaris).

> Invertebrates: 50 recorded species are designated under the W&CA, Small Heath (Coenonympha pamphilus), Small Blue (Cupido minimus) and Dingy Skipper (Erynnis tages).

> Plants: 11 recorded species are designated under the W&CA, including Bluebell (Hyacinthoides non-scripta), Common eyebright (Euphrasia nemorosa) and Field Scabious (Knautia arvensis).

<sup>&</sup>lt;sup>69</sup> Details provided by Sussex Biodiversity Records Centre

Parameter	Detail
	Mammals: Two mammals Grey Seal (Halichoerus grypus) and West European Hedgehog (Erinaceus europaeus).
	Invasive Species: Two recorded species of plant are designated under the W&CA Sch. 9, Three-Cornered Leek (Allium triquetrum) and Wall Cotoneaster (Cotoneaster horizontalis). 2 bird species and 1 species of mammal recorded are also designated.
Review of Aerial Images	Appears to be arable land mixed with rough grassland and scrub, consistent with coastal and floodplain grazing marsh. The settlement is bordered on one side by the coast. Cuckmere River is located 1.2km east of the settlement.
	Lewes Brooks and the Ouse Valley BOA Seaford to Eastbourne Downs BOA B-Lines (BugLife) High Wetland Habitat Potential SSSI units (not favourable).
GCN Impact Risk Zone	Varied – there is an area of black that I think falls within the south west part of the study area.
Other Constraints From Desk Study	The Seaford coast is primarily managed with a no intervention strategy, with erosion allowed to continue. This could potentially result in losses of Priority Habitat.
BNG Opportunities	The settlement is immediately adjacent to SDNP and Seaford to Beachy Head SSSI as well as several local nature reserves and wildlife sites. Depending on the quality of the existing habitats present (including Priority Habitats), these could potentially be enhanced to provide BNG provision. Small areas of woodland southeast of Seaford that could be connected/expanded.  Lewes Brooks and the Ouse Valley BOA and Seaford to Eastbourne Downs BOA offer opportunities for biodiversity enhancement and BNG provision.
Other Opportunities	Potential for targeting Priority Species for Countryside Stewardship Targeting: Brown Hairstreak, Corn Bunting, Lapwing, and Redshank.  Seaford to Beachy Head SSSI is in "not favourable" condition, meaning there is room for enhancement and improvement of this habitat.

3.24 The land surrounding the settlement is less suitable for development. It contains Priority Habitats (maritime cliff and slope, deciduous woodland, lowland calcareous grassland, coastal and floodplain grazing marsh, saline lagoons, and coastal vegetated shingle). S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred.

- 3.25 The Lewes Lawton Recover Mapping identified that the settlement is surrounded by the following areas: B-Lines (BugLife), High Wetland Habitat Potential and SSSI units (not favourable).
- 3.26 The settlement is also constrained by the following designations: SDNP, Brighton and Lewes Downs Biosphere Reserve, Seaford to Beachy Head SSSI, Old Brickfield LWS, Tide Mills LWS, Bishopstone downs LWS, Denton Hill Downs LWS, Seaford head LWS, Seaford head LNR, and Beachy Head West MCZ.
- 3.27 From review of aerial imagery, the dominant habitats surrounding the settlement are arable land mixed with rough grassland and scrub, (from review of aerial imagery) consistent with coastal and floodplain grazing marsh. The settlement is bordered on one side by the coast. Cuckmere River is located 1.2km east of the settlement.
- 3.28 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

# **Opportunities**

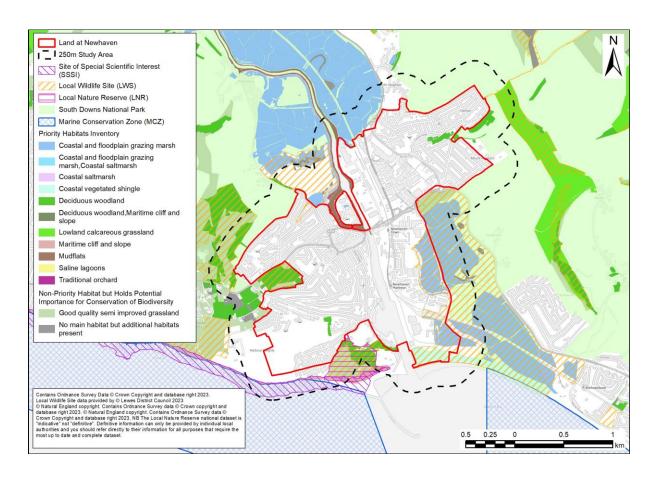
- 3.29 The settlement is located immediately adjacent to SDNP and Seaford to Beachy Head SSSI as well as a LNR, and LWSs. Depending on the quality of the existing habitats present (including Priority Habitats), these could potentially be enhanced to provide BNG provision.
- 3.30 Small areas of woodland located to the southeast of Seaford could be connected/expanded. In addition, Lewes Brooks and the Ouse Valley BOA and Seaford to Eastbourne Downs BOA surround the settlement and could provide opportunities for biodiversity enhancements.

#### **Land at Newhaven**

3.31

3.32 Table 8 provides the Biodiversity Assessment for Land at Newhaven. A map of the area is shown below.

**Parameter** 



**Table 8. Land at Newhaven Biodiversity Assessment** 

**Detail** 

- aramotor	
Size (ha)	N/A
Developable Area (ha)	N/A
Indicative Quantum of Development	N/A
<i>3</i>	Deciduous woodland Good quality semi-improved grassland Maritime cliff and slope Mudflats Coastal saltmarsh Coastal and floodplain grazing marsh Coastal vegetated shingle Open mosaic habitat
Priority Species for Countryside Stewardship Targeting	Brown Hairstreak Corn Bunting Lapwing Redshank Snipe
Site Designations	SDNP

#### **Parameter**

#### Detail

Brighton and Lewes Downs Biosphere Reserve

East Brighton Downs BOA

Lewes Brooks and the Ouse Valley BOA

Castle Hill LNR and LWS

Brighton to Newhaven Cliffs SSSI (Favourable status)

Peacehaven Golf Course LWS, Newhaven Refuse Tip LWS, Tide Mills LWS, Newhaven Cliffs LWS, Newhaven Ponds LWS, Peacehaven Heights LWS and Meeching Down LWS, and Bishopstone Downs LWS

Protected Notable Site<sup>70</sup>

and Birds: 8 recorded species are listed in the Birds Directive Annex Species 1, including Red-throated Diver (Gavia stellata), Spoonbill Within c.50m of the (Platalea leucorodia) and Nightjar (Caprimulgus europaeus). 10 recorded species are designated on Schedule 1 Part 1 of the W&CA and the Habitats Regulations, including Red Kite (Milvus milvus), Cetti's Warbler (Cettia cetti) and Osprey (Pandion haliaetus). 14 recorded species are listed under NERC S41 Including Wood warbler (Phylloscopus sibilatrix), Starling (Sturnus vulgaris) and Song Thrush (Turdus philomelos). 14 recorded species are on the birds of conservation concern red list, including Cuckoo (Cuculus canorus).

> Bats: Four recorded species designated under the Habitats Regulations and the W&CA, Common Pipistrelle (Pipistrellus pipistrellus). Soprano Pipistrelle (Pipistrellus pygmaeus), Daubenton's (Myotis daubentonii) and Noctule (Nyctalus noctula).

> Invertebrates: 4 recorded species are designated under the WC&A, including Chalk Hill Blue (Polyommatus coridon) and White-letter hairstreak (Satyrium w-album).

> Invasive Species: Recorded species which are designated under the WC&A Sch. 9. One species of plant, Three-Cornered Leek (Allium triquetrum). One species of bird, Canada Goose (Branta canadensis).

> Amphibians: One recorded species is designated under the W&CA and the Habitats Regulations Schedule 2, Great Created Newt (Triturus cristatus).

> Reptiles: Four recorded species are designated under the WC&A, including Slow-worm (Anguis fragilis) and Common Lizard (Zootoca vivipara).

> Plants: One recorded species is designated under the WC&A. Bluebell (Hyacinthoides non-scripta).

# Review **Images**

of Aerial The settlement is bordered on one side by the coast and generally surrounded with arable fields, woodland and grassland and scrub, consistent with coastal and floodplain grazing marsh. The River Ouse passes through Newhaven.

<sup>70</sup> Details provided by Sussex Biodiversity Records Centre

Parameter	Detail
	High Wetland Habitat Potential B-Lines (BugLife) East Brighton Downs BOA Lewes Brooks and the Ouse Valley BOA
Great Crested Newt Impact Risk Zone	Varied (from white to black) – black area includes the east, which is partly within the study area as per the map above
Other Constraints From Desk Study	The coastal cliffs are being allowed to erode at present with plans to use engineering in the medium to long term to protect property. This may harm the biological value in the 2025–2105 time frame.  Area northwest of Newhaven has been identified as high level
BNG Opportunities	The site is immediately adjacent to SDNP. Depending on the quality of the existing habitats within the site, this site could potentially be enhanced to provide BNG provision. The LWSs, depending on condition, could be enhanced. There are small areas of deciduous woodland that could be connected. Priority Habitats and other surrounding habitats could be enhanced/ created to improve biodiversity and habitat connectivity. The River Ouse and directly surrounding habitat could be enhanced. East Brighton Downs BOA and Lewes Brooks and the Ouse Valley BOA is likely to offer habitat enhancement/creation opportunities that could be used for BNG provision.
Other Opportunities	Potential for targeting Priority Species for Countryside Stewardship Targeting: Brown Hairstreak, Corn Bunting, Lapwing, Redshank, and Snipe.  The Forestry Commission's Woodland Priority Habitat could potentially be enhanced.

- 3.33 The land surrounding the settlement is less suitable for development. It contains Priority Habitats (deciduous woodland, good quality semi-improved grassland, maritime cliff and slope, mudflats, coastal saltmarsh, coastal and floodplain grazing marsh, coastal vegetated shingle, and open mosaic habitat). S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred.
- 3.34 The Lewes Lawton Recover Mapping identified that the settlement is surrounded by the following areas: B-Lines (BugLife), East Brighton Downs BOA, Lewes Brooks and the Ouse Valley BO, and SSSI (Favourable)
- 3.35 The settlement is also constrained by the following designations: SDNP, Brighton and Lewes Downs Biosphere Reserve, East Brighton Downs BOA, Lewes Brooks and the Ouse Valley BOA, Castle Hill LNR and LWS, Brighton to Newhaven Cliffs SSSI (Favourable status), Peacehaven Golf Course LWS, Newhaven Refuse Tip LWS, Tide Mills LWS, Newhaven Cliffs LWS, Newhaven Ponds LWS, Peacehaven Heights LWS and Meeching Down LWS, and Bishopstone Downs LWS

- 3.36 From review of aerial imagery, the settlement is bordered on one side by the coast and generally surrounded with arable fields, woodland, grassland (including good quality semi-improved grassland) and scrub, consistent with coastal and floodplain grazing marsh. The River Ouse passes through Newhaven.
- 3.37 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

# **Opportunities**

- 3.38 The settlement is located immediately adjacent to SDNP. Depending on the quality of the existing habitats within the site, this site could potentially be enhanced to provide BNG provision. The LWSs, depending on condition, could be enhanced.
- 3.39 There are small areas of deciduous woodland that could be connected. The River Ouse and directly surrounding habitat could potentially be enhanced. In addition, the East Brighton Downs BOA and Lewes Brooks and the Ouse Valley BOA surround the settlement and could provide opportunities for biodiversity enhancements.

# Land at Peacehaven and Telescombe Cliffs 3.40

3.41 Table 9 provides the biodiversity assessment for land surrounding Peacehaven & Telscombe Cliffs. A map of the area is shown overleaf.



Table 9. Land surrounding Peacehaven and Telscombe Cliffs Biodiversity **Assessment** 

Parameter	Detail
Size (ha)	N/A
Developable Area (ha)	N/A
Indicative Quantum of Development	N/A
Priority Habitats (NERC S41 habitat) identified on MAGIC	Maritime cliff and slope Good quality semi-improved grassland <sup>71</sup> Deciduous woodland
Priority Species for Countryside Stewardship Targeting	Corn Bunting Lapwing Redshank
Site Designations	South Downs National Park Brighton and Lewes Downs Biosphere Reserve East Brighton Downs BOA Brighton to Newhaven Cliffs SSSI Cliff Grassland LWS, Cairo Avenue LWS, Peacehaven LWS, Peacehaven Heights LWS, and Halcombe Farm LWS
Notable Species	<u>Birds</u> : One recorded species is listed in the Birds Directive Annex 1, Osprey ( <i>Pandion haliaetus</i> ). Three recorded species are listed on Schedule 1 Part 1 of the Wildlife and Countryside Act, including Cetti's Warbler ( <i>Cettia cetti</i> ) and Crossbill ( <i>Loxia curvirostra</i> ). Three recorded species are designated under NERC S41 including Skylark ( <i>Alauda arvensis</i> ). Twelve recorded species are on the birds of conservation concern red list, including Meadow Pipit ( <i>Anthus pratensis</i> ).
	<u>Invertebrates</u> : Four recorded species are designated including Dot Moth ( <i>Melanchra persicariae</i> ).
	<u>Plants</u> : Two recorded species are designated, Good-King-Henry ( <i>Chenopodium bonus-henricus</i> ) and Common Cudweed ( <i>Filago vulgaris</i> ).
	Reptiles: Two recorded species are designated under the W&CA, including Slow-worm (Anguis fragilis) and Common Lizard (Zootoca vivipara).
	<u>Invasive Species</u> : Two recorded species are designated under the W&CA Sch. 9, Red Valerian ( <i>Centranthus ruber</i> ) and Montbretia ( <i>C. x crocosmiiflora</i> ).

 $<sup>^{71}\,</sup>$  Not a S41 habitat but identified on MAGIC's priority habitat inventory mapping.  $^{72}\,$  Details provided by Sussex Biodiversity Records Centre

Parameter	Detail
Review of Aerial Images	The settlement is bordered on one side by the coast and generally surrounded with arable fields, small areas of woodland, grassland and scrub, consistent with coastal and floodplain grazing marsh.
	High Wetland Habitat Potential East Brighton Downs BOA B-Lines (BugLife) Brighton to Newhaven Cliffs SSSI units (not favourable) Local Wildlife site (failing SDL160)
Great Crested Newt Impact Risk Zone	Mostly green/white, but pockets of amber
Other Constraints From Desk Study	The coastal policy at Peacehaven involves no active intervention. This is not expected to have an impact on biodiversity.
BNG Opportunities	The site is immediately adjacent to the SDNP. Depending on the quality of the existing habitats within the site, this site could potentially be enhanced to provide BNG provision.  Depending on the quality of the Priority Habitats within the study area, these could potentially be enhanced. Additional habitats could be enhanced/ created to increase habitat connectivity into the wider area. East Brighton Downs BOA provides opportunities for biodiversity enhancement.
Other Opportunities	Potential for targeting Priority Species for Countryside Stewardship Targeting: Corn Bunting, Lapwing, and Redshank.

- 3.42 The land surrounding the settlement is less suitable for development. It contains Priority Habitats (maritime cliff and slope, good quality semi-improved grassland, and deciduous woodland). S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred.
- 3.43 The Lewes Lawton Recover Mapping identified that the settlement is surrounded by the following areas: High Wetland Habitat Potential, East Brighton Downs BOA, B-Lines (BugLife), Brighton to Newhaven Cliffs SSSI units (not favourable), Local Wildlife site (failing SDL160).
- 3.44 The settlement is also constrained by the following designations: SDNP, Brighton and Lewes Downs Biosphere Reserve, East Brighton Downs BOA, Brighton to Newhaven Cliffs SSSI, Peacehaven Heights LWS, and Halcombe Farm LWS.
- 3.45 From review of aerial imagery, the settlement is bordered on one side by the coast and generally surrounded with arable fields, small areas of woodland, grassland and scrub, consistent with coastal and floodplain grazing marsh.
- 3.46 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application.

Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

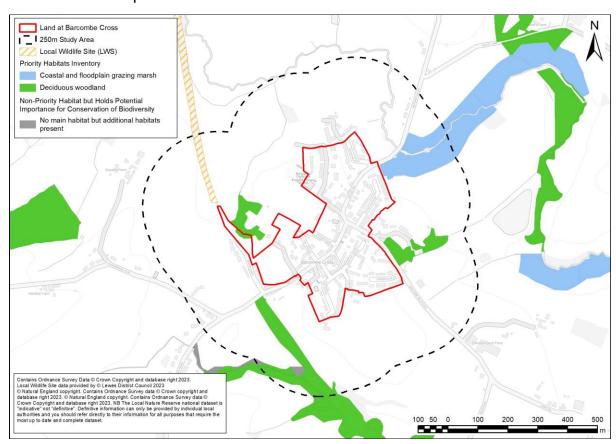
# **Opportunities**

- 3.47 The settlement is located immediately adjacent to SDNP and the area surrounding the settlement includes LWSs. Depending on the quality of the existing habitats within these locations, habitats could potentially be enhanced to provide BNG provision. In addition the East Brighton Downs BOA may provide opportunities for biodiversity enhancements that could provide BNG provision.
- 3.48 The coastal habitats, arable fields, small areas of woodland, grassland and scrub, consistent with coastal and floodplain grazing marsh could potentially be enhanced as could the Priority Habitats.

#### **Land at Barcombe Cross**

3.49

3.50 Table 10 provides the biodiversity assessment for land surrounding Barcombe Cross. A map of the area is shown below.



**Table 10. Land at Barcombe Cross Biodiversity Assessment** 

Parameter	Detail	
Size (ha)	N/A	
Developable (ha)	Area N/A	

Indicative Quantum of N/A Development

Parameter	Detail
Priority Habitats (NERC S41 habitat) identified on MAGIC	Coastal and floodplain grazing marsh Deciduous woodland
Priority Species for Countryside Stewardship Targeting	None identified
Site Designations	Dismantled Railway Line, Barcombe LWS, Scobells Meadow LWS Lewes Downs BOA
Protected and	Birds: No designated species are listed.
Notable Species Within c.50m of the Site <sup>73</sup>	Manification of the recorded species is designated under the No.
Sile.	Reptiles: One recorded species is designated under the WC&A, Grass Snake ( <i>Natrix helvetica</i> ).
	Amphibians: One recorded species is designated under the W&CA and the Habitats Regulations Schedule 2, Great Crested Newt ( <i>Triturus cristatus</i> ).
	<u>Invasive species</u> : Two recorded species are designated under the WC&A Sch. 9, Canada Goose ( <i>Branta canadensis</i> ) and a beetle ( <i>Harmonia axyridis</i> ).
Review of Aerial Images	The settlement is surrounded by rough grass fields with a network of hedgerows/lines of trees.
	High wetland habitat potential Lewes Downs BOA
GCN Impact Risk Zone	Up to red
Other Constraints From Desk Study	None identified
BNG Opportunities	The site is close to Dismantled Railway Line, Barcombe LWS. Depending on the quality of the existing habitats within the site, this site could potentially be enhanced to provide BNG provision.  Small areas of woodland, Priority Habitats and surrounding
	habitats could be enhanced/ created to enhance connectivity into the wider area to for BNG provisoin. The Lewes Downs BOA also offers opportunities to enhance biodiversity and BNG provision.
Other Opportunities	None identified

 $<sup>^{73}</sup>$  Details provided by Sussex Biodiversity Records Centre

- 3.51 The land surrounding the settlement is potentially suitable for development. It contains Priority Habitats (deciduous woodland and coastal and floodplain grazing marsh). S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred.
- 3.52 The Lewes Lawton Recover Mapping identified that the settlement has habitats of High Wetland Potential and Lewes Downs BOA.
- 3.53 The settlement is constrained by the following designations: Dismantled Railway Line, and Barcombe LWS.
- 3.54 From review of aerial imagery, the settlement is surrounded by rough grass fields with a network of hedgerows/lines of trees.
- 3.55 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

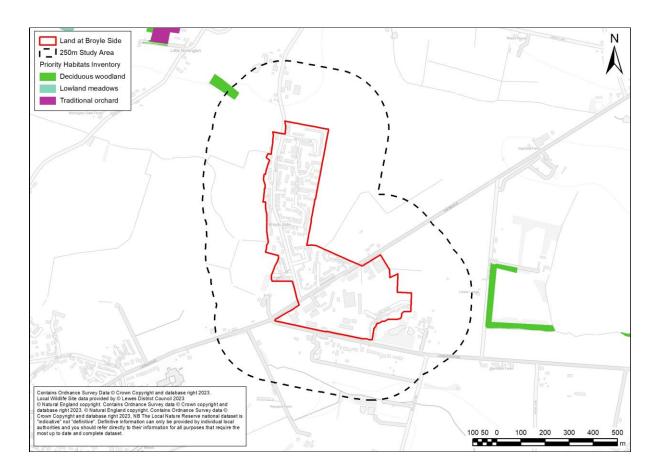
# **Opportunities**

- 3.56 The land surrounding the settlement includes the Dismantled Railway Line, Barcombe LWS, depending on the quality of the existing habitats within the site, this site could potentially be enhanced to provide BNG provision. In addition, the Lewes Downs BOA may give opportunities for biodiversity enhancements that could increase BNG provision.
- 3.57 The rough grass fields could be enhanced, including connecting the small areas of woodland to increase BNG. Depending on the condition of the woodland areas, these could also be enhanced.

## Land at Broyle Side

3.58

3.59 Table 11 provides the Biodiversity Assessment for Land at Broyle Side. A map of the area is shown below.



**Table 11. Land at Broyle Side Biodiversity Assessment** 

Parameter	Detail
Size (ha)	N/A
Developable Area (ha)	N/A
Indicative Quantum of Development	N/A
•	Deciduous woodland Open mosaic habitats
Priority Species for Countryside Stewardship Targeting	None identified
Site Designations	Lewes Brooks and the Ouse Valley BOA
Protected and	Birds: One bird Woodlark ( <i>Lullula arborea</i> ) species is listed in

Within c.50m of the and Countryside Act and under NERC S41. Site<sup>74</sup>

Species the Birds Directive Annex 1, Schedule 1 Part 1 of the Wildlife

<sup>&</sup>lt;sup>74</sup> Details provided by Sussex Biodiversity Records Centre

Parameter	Detail
	Amphibians: One recorded species is designated under the W&CA and the Habitats Regulations Schedule 2, Great Crested Newt ( <i>Triturus cristatus</i> ).
	Reptiles: Two recorded species are designated under the WC&A, Grass Snake ( <i>Natrix helvetica</i> ) and Common Lizard ( <i>Zootoca vivipara</i> ).
Review of Aerial Images	The settlement is surrounded with arable fields with a well-connected network of hedgerows and row of trees.
Lewes Lawton	High Wetland Habitat Potential
Recover Mapping Detail	Lewes Brooks and the Ouse Valley BOA
Great Crested Newt Impact Risk Zone	Green, Red and Amber.
Other Constraints From Desk Study	None identified
BNG Opportunities	Priority Habitats, and other surrounding habitats could be enhanced and / or created to enhance habitat connectivity into the wider area could provide BNG provision. Lewes Brooks and the Ouse Valley BOA offers opportunities to enhance biodiversity and BNG provision.
Other Opportunities	None identified

- 3.60 The land surrounding the settlement is potentially suitable for development. It contains some Priority Habitats at relatively low levels (deciduous woodland and open mosaic habitats). S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred.
- 3.61 The Lewes Lawton Recover Mapping identified areas of High Wetland Habitat Potential. The Lewes Brooks and the Ouse Valley BOA is located next to the settlement.
- 3.62 From review of aerial imagery, the settlement is surrounded with arable fields with a well-connected network of hedgerows and row of trees.
- 3.63 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

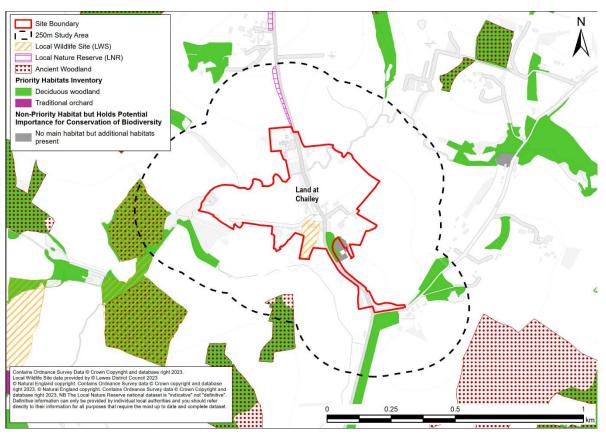
#### **Opportunities**

- 3.64 There may be opportunities to improve the existing hedgerow network and field margins within the land surrounding the settlement.
- 3.65 The Lewes Lawton Recover Mapping identified that the settlement is surrounded by the following: Lewes Brooks and the Ouse Valley BOA.

# **Land at Chailey**

3.66

3.67 Table 12 provides the biodiversity assessment for land at surrounding Chailey. A map of the area is included below.



**Table 12. Land at Chailey Biodiversity Assessment** 

Parameter	Detail
Size (ha)	N/A
Developable Area (ha)	N/A
Indicative Quantum of Development	N/A
,	Deciduous woodland Wood pasture and parkland
Priority Species for Countryside Stewardship Targeting	Lapwing
Site Designations	Chailey Common Local Nature Reserve (LNR) Chailey Churchyard LWS
	Birds: One species is listed on Schedule 1 Part 1 of the Wildlife and Countryside Act. Hobby (Falco Subbuteo). Two species

Parameter	Detail
Within c.50m of the Site <sup>75</sup>	are listed under NERC S41 Ring Ousel ( <i>Turdus torquatus</i> ) and Marsh Tit ( <i>Poecile palustris</i> ). One species is on the birds of conservation concern red list, Woodcock ( <i>Scolopax rusticola</i> ).  Bats: One recorded species designated under the W&CA and the Brown Long-eared Bat ( <i>Plecotus auritus</i> ).  Invasive species: One record species is designated under the W&CA, a beetle ( <i>Harmonia axyridis</i> ).
Review of Aerial Images	The settlement is predominantly surrounded by grazed grassland, with small areas of woodland and small arable fields.
	High Wetland Habitat Potential Local Wildlife Site (Failing SDL 160)
Great Crested Newt Impact Risk Zone	Up to red
Other Constraints From Desk Study	None identified
BNG Opportunities	Depending on the quality of the existing habitats within the study area, they could potentially be enhanced to provide BNG provision. Priority Habitats, the identified areas of High Wetland Habitat Potential, habitats within the LNR and LWS and the woodland habitats surrounding within the study area could be enhanced and/or created to increase habitat connectivity into the wider area and BNG provision.
Other Opportunities	Potential for targeting Priority Species for Countryside Stewardship Targeting: Lapwing.

- 3.68 The land surrounding the settlement is less suitable for development. It contains the deciduous woodland Priority Habitat in all directions and wood pasture and parkland. S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred.
- 3.69 The Lewes Lawton Recover Mapping identified that the settlement is surrounded by the following: Areas with High Wetland Habitat Potential.
- 3.70 The settlement is also constrained by the following designations: Chailey Common LNR, and Chailey Churchyard LWS.
- 3.71 From review of aerial imagery, the settlement is predominantly surrounded by grazed grassland, with small areas of woodland and small arable fields.
- 3.72 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application.

<sup>&</sup>lt;sup>75</sup> Details provided by Sussex Biodiversity Records Centre

Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

#### **Opportunities**

- 3.73 Depending on the quality of the existing habitats within the land surrounding the settlement, it could potentially be enhanced to provide BNG provision.
- 3.74 The Lewes Lawton Recover Mapping identified areas of High Wetland Habitat Potential which could be improved/developed. In addition Chailey Churchyard LWS is failing SDL 160. Habitat enhancements could be undertaken within the LWS

## Land at Cooksbridge

3.75

3.76 Table 13 provides the Biodiversity Assessment for Land surrounding Cooksbridge. A map of the area is shown overleaf.

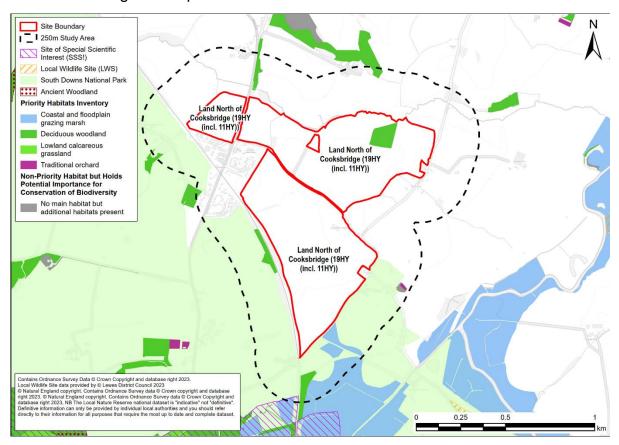


Table 13. Land surrounding Cooksbridge Biodiversity Assessment

Parameter	Detail		
Size (ha)	N/A		
Developable (ha)	Area N/A		
Indicative Qu	ıantum N/A		

of Development

Parameter	Detail
Priority Habitats (NERC S41 habitat) identified on MAGIC	Deciduous woodland
Priority Species for Countryside Stewardship Targeting	Lapwing
Site Designations	SDNP Brighton and Lewes Downs Biosphere Reserve Lewes Brooks and the Ouse Valley BOA
Notable Species	<u>Birds</u> : No designated bird species identified. <u>Mammals</u> : One recorded species is designated under NERC S41, West European Hedgehog ( <i>Erinaceus europaeus</i> )
Review of Aerial Images	The settlement is surrounded with agricultural fields and rough grassland with a network of woodland and hedgerows.
	High Wetland Habitat Potential Lewes Brooks and the Ouse Valley BOA B-Lines (BugLife)
Great Crested Newt Impact Risk Zone	Green and Amber.
Other Constraints From Desk Study	None identified
BNG Opportunities	The site is immediately adjacent to the SDNP. Depending on the quality of the existing habitats within the study area, these could potentially be enhanced for BNG provision. Priority Habitat, woodland, hedgerows and grassland, along with other surrounding habitats could be created and/or enhanced to improve habitat connectivity. Lewes Brooks and the Ouse Valley BOA also offers potential opportunities for biodiversity enhancement and BNG provision.
Other Opportunities	Potential for targeting Priority Species for Countryside Stewardship Targeting: Lapwing

- 3.77 The land surrounding the settlement has some suitability for development. It contains the deciduous woodland Priority Habitat. S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred.
- 3.78 The Lewes Lawton Recover Mapping identified that the settlement is surrounded by the following areas: B-Lines (BugLife), Lewes Brooks and the Ouse Valley BOA.

<sup>&</sup>lt;sup>76</sup> Details provided by Sussex Biodiversity Records Centre

- 3.79 The settlement is also constrained by the following designations: Lewes Brooks and the Ouse Valley BOA.
- 3.80 From review of aerial imagery, the settlement is surrounded with agricultural fields and rough grassland with a network of woodland and hedgerows.
- 3.81 The data search didn't return any results for protected species. Full protected species surveys would be required to support any planning application. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

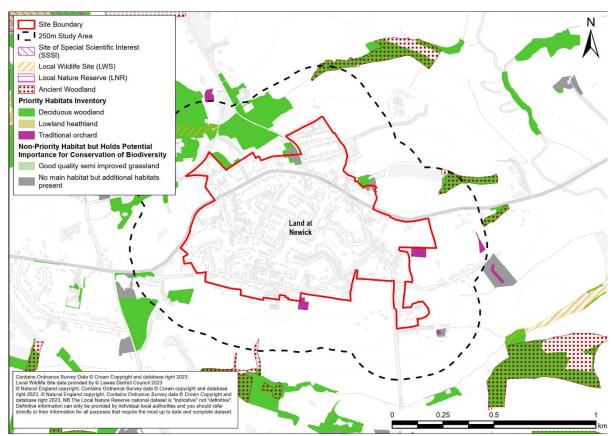
#### **Opportunities**

- 3.82 Whilst the land surrounding this settlement is suited to development due to lower levels of notable habitats on site, this site could also provide BNG opportunities if needed via habitat enhancement and / or creation.
- 3.83 Priority Habitats, trees, hedgerows and rough grassland could be enhanced to improve connectivity.
- 3.84 The Lewes Brooks and the Ouse Valley BOA may provide further opportunities for BNG

#### **Land at Newick**

3.85

3.86 Table 14 provides the biodiversity assessment for land surrounding Newick. A map of the site is included below.



**Table 14. Land surrounding Newick Biodiversity Assessment** 

Parameter	Detail
Size (ha)	N/A
Developable Area (ha)	N/A
Indicative Quantum of Development	N/A
Priority Habitats (NERC S41 habitat) identified on MAGIC	Deciduous woodland Traditional Orchard
Priority Species for Countryside Stewardship Targeting	Lapwing
Site Designations	Chailey Warren LWS, Newick Fields LWS, Founthill Wood North LWS
Notable Species	Birds: One recorded species is listed in the Birds Directive Annex 1, Red Kite ( <i>Milvus milvus</i> ).  Invertebrates: Two recorded species are designated under NERC S41, Small Heath ( <i>Coenonympha pamphilus</i> ) and Cinnabar ( <i>Tyria jacobaeae</i> ).  Mammals: One recorded species is designated under NERC S41, West European Hedgehog ( <i>Erinaceus europaeus</i> ).  Plants: One species is designated under the WC&A, Bluebell ( <i>Hyacinthoides non-scripta</i> ).  Invasive Species: One species is designated under the WC&A Sch. 9, Himalayan Balsam ( <i>Impatiens glandulifera</i> ).
Review of Aerial Images	The settlement is surrounded with agricultural fields with a network of hedgerows and woodland, there is deciduous woodland to the north.
	High Wetland Habitat Potential Local Wildlife Site (failing SDL160) Mid Ouse Floodzone BOA
Great Crested Newt Impact Risk Zone	Red, Green and Amber.
Other Constraints From Desk Study	None identified
BNG Opportunities	Priority Habitats, the LWSs and surrounding habitats could be enhanced/ created to enhance habitats and increase habitat connectivity into the wider area and BNG provision. The Mid

<sup>&</sup>lt;sup>77</sup> Details provided by Sussex Biodiversity Records Centre

Parameter	Detail
	Ouse Floodzone BOA offers potential for biodiversity enhancements and BNG provision.
Other Opportunities	Potential for targeting Priority Species for Countryside Stewardship Targeting: Lapwing.

- 3.87 The land surrounding the settlement is less suitable for development. It contains Priority Habitats (deciduous woodland and traditional orchard). S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred.
- 3.88 The Lewes Lawton Recover Mapping identified that the settlement is surrounded by the following: Areas with High Wetland Habitat Potential and Chailey Warren LWS (Failing).
- 3.89 The settlement is also constrained by the following designations: Mid Ouse Floodzone BOA, Chailey Warren LWS, Newick Fields LWS, and Founthill Wood North LWS
- 3.90 From review of aerial imagery, the settlement is surrounded with agricultural fields with a network of hedgerows and woodland, there is deciduous woodland to the north.
- 3.91 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

#### **Opportunities**

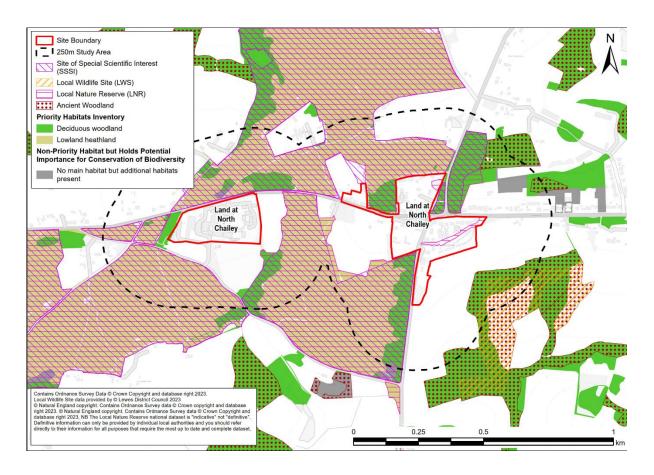
- 3.92 Whilst the land surrounding the settlement may accommodate some limited development it could also provide BNG opportunities via habitat enhancement and / or creation.
- 3.93 The failing Chailey Warren LWS could be managed and enhanced, as could Founthill Wood North LWS if appropriate. Priority Habitats, and other surrounding habitats could be enhanced/ created to increase habitat connectivity into the wider area.
- 3.94 The Mid Ouse Floodzone BOA may provide further opportunities for BNG.

### **Land at North Chailey**

3.95

3.96 Table 15 provides the biodiversity assessment for land surrounding Chailey. A map of the area is shown below.

**Parameter** 



**Table 15. Land surrounding North Chailey Biodiversity Assessment** 

Detail

1 drameter	Detail
Size (ha)	N/A
Developable Area (ha)	N/A
Indicative Quantum of Development	N/A
Priority Habitats (NERC S41 habitat) identified on MAGIC	(irreplaceable habitats))
Priority Species for Countryside Stewardship Targeting	None identified
Site Designations	Chailey Common SSSI and Chailey Common LNR Frick Wood Heathland LWS - Ancient site where heathland has established on an old pine plantation.
Protected and <u>Birds</u> : One recorded species is listed in the Birds Directive Species Annex 1, Nightjar ( <i>Caprimulgus europaeus</i> ). One species recorded is listed on Schedule 1 Part 1 of the W&CA, Hobby ( <i>Falco Subbuteo</i> ). 5 recorded species are listed under NERC S41, including Cuckoo ( <i>Cuculus canorus</i> ) and Linnett ( <i>Linaria</i> )	

Parameter	Detail		
Within c.50m of the Site <sup>78</sup>	cannabina). Two of these species are on the birds of conservation concern red list.  Invasive Species: One recorded species, Japanese Knotweed (Sciurus carolinensis) is listed under the W&CA Sch. 9.		
Review of Aerial Images	The settlement is surrounded by rough grass fields with a network of hedgerows/lines of trees. There is deciduous woodland to the north and south.		
	High Wetland Habitat Potential		
	Western Ouse Streams and Ashdown Forest BOA		
Great Crested Newt Impact Risk Zone	Up to red		
Other Constraints From Desk Study	None identified		
BNG Opportunities	The site is immediately adjacent to Chailey common LNR. Depending on the quality of the existing habitats within the LNR, it could potentially be enhanced to provide BNG provision. Priority Habitats, Frick Wood Heathland LWS and other surrounding habitats could be enhanced to increased biodiversity and BNG provision. This could also provide habitat connectivity into the wider area. The BOA and the realisation of the High Wetland Habitat Potential offer opportunities for biodiversity enhancements. And BNG provision.		
Other Opportunities	None identified.		

- 3.97 The land surrounding the settlement is less suitable for development. It contains Priority Habitats (deciduous woodland (including ancient woodland, an irreplaceable habitats), lowland heathland, and wood pasture and parkland). S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred.
- 3.98 The Lewes Lawton Recover Mapping identified that the settlement is surrounded by the following: Areas with high wetland habitat potential and Western Ouse Streams and Ashdown Forest BOA.
- 3.99 The settlement is also constrained by the following designations: Chailey Common SSSI and LNR. Frick Wood Heathland LWS.
- 3.100 From review of aerial imagery, the settlement is surrounded by rough grass fields with a network of hedgerows/lines of trees.
- 3.101 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application.

<sup>&</sup>lt;sup>78</sup> Details provided by Sussex Biodiversity Records Centre

Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

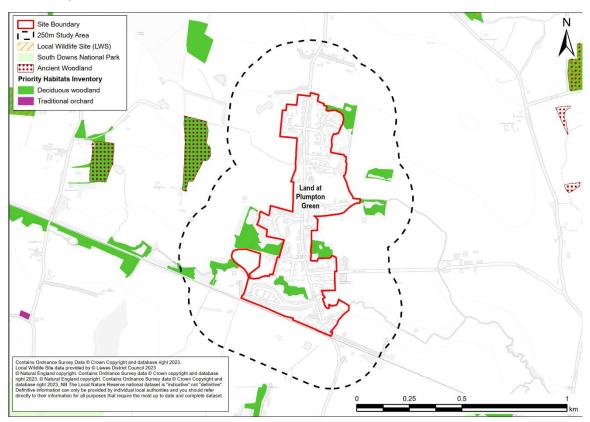
#### **Opportunities**

- 3.102 Whilst the land surrounding the settlement could accommodate some limited development it could also provide BNG opportunities via habitat enhancement and / or creation.
- 3.103 Depending on the condition of existing habitats, Frick Wood Heathland LWS, and Chailey Common LNR and SSSI could be enhanced.
- 3.104 The area of High Wetland Habitat Potential could be enhanced as could Priority Habitats and other surrounding habitats. This could also enhance habitat connectivity into the wider area. The BOA may also offer opportunities for biodiversity enhancement.

# **Land at Plumpton Green**

3.105

3.106 Table 16 provides the biodiversity assessment for land at Plumpton Green. A map of the area is shown overleaf.



**Table 16. Land at Plumpton Green Biodiversity Assessment** 

Parameter	Detail	
Size (ha)	N/A	
Developable (ha)	Area N/A	

Indicative Quantum N/A

Parameter	Detail	
of Development		
Priority Habitats (NERC S41 habitat) identified on MAGIC	Deciduous woodland	
Priority Species for Countryside Stewardship Targeting	r Brown Hairstreak Lapwing	
Site Designations	Stanmer and Ditchling Downs BOA	
	Birds: No notable or designated species are recorded.	
Notable Species Within c.50m of the Site <sup>79</sup>	Amphibians: One species is designated under the W&CA and the Habitats Regulations Schedule 2, Great Crested Newt ( <i>Triturus cristatus</i> ).	
	<u>Invertebrates</u> : One recorded species is designated under NERC S41, Small Heath ( <i>Coenonympha pamphilus</i> ).	
	Reptiles: Three species are designated under NERC S41, Grass Snake ( <i>Natrix Helvetica</i> ), Common Lizard ( <i>Zootoca vivipara</i> ) and Adder ( <i>Vipera berus</i> ).	
	<u>Mammals</u> : One recorded species is designated under NERC S41, West European Hedgehog ( <i>Erinaceus europaeus</i> ).	
	<u>Invasive Species</u> : One recorded species is designated under the W&CA Sch. 9, Three-Cornered Leek ( <i>Allium triquetrum</i> ).	
Review of Aerial Images	The settlement is surrounded by rough grass fields with a network of hedgerows/lines of trees.	
Recover Mapping	High Wetland Habitat Potential Stanmer and Ditchling Downs BOA	
Detail Great Crested Newt	Primarily Red with some Amber.	
Impact Risk Zone	Trimainy real man come rundon.	
Other Constraints From Desk Study	None identified	
BNG Opportunities	The many small areas of deciduous woodland within the study area, the area of High Wetland Habitat Potential, and other surrounding habitats could be enhanced to increase biodiversity value and increase habitat connectivity into the wider area. The BOA also offers opportunities for biodiversity enhancement and BNG provision.	
Other Opportunities	Potential for targeting Priority Species for Countryside Stewardship Targeting: Brown Hairstreak, and Lapwing.	

<sup>&</sup>lt;sup>79</sup> Details provided by Sussex Biodiversity Records Centre

#### **Constraints**

- 3.107 The land surrounding the settlement has some suitability for limited development. It contains Priority Habitats (deciduous woodland). S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred. The Lewes Lawton Recover Mapping identified that the settlement is surrounded by the areas of High Wetland Habitat Potential. The settlement is also constrained by the following designations: Stanmer and Ditchling Downs BOA.
- 3.108 From review of aerial imagery, the settlement is surrounded by rough grass fields with a network of hedgerows/lines of trees.
- 3.109 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

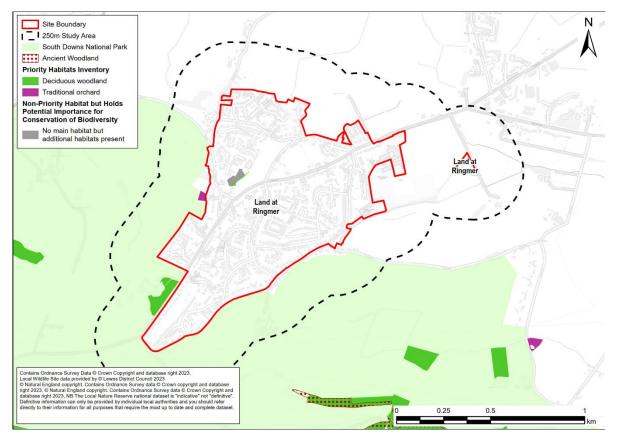
#### **Opportunities**

3.110 Whilst the study land surrounding the settlement could accommodate some limited development it could also provide BNG opportunities via habitat enhancement and / or creation. This could include within the Highland Wetland Potential and the many small areas of deciduous woodland that could be enhanced and/ or connected.

#### **Land at Ringmer**

3.111

3.112 Table 17 provides the biodiversity assessment for Land surrounding Ringmer. A plan of the area is included below.



**Table 17. Land surrounding Ringmer Biodiversity Assessment** 

Parameter	Detail				
Size (ha)	N/A				
Developable Area (ha)	N/A				
Indicative Quantum of Development	N/A				
Priority Habitats (NERC S41 habitat) identified on MAGIC	Deciduous woodland Traditional orchard				
Priority Species for Countryside Stewardship Targeting	Lapwing				
Site Designations	SDNP Brighton and Lewes Downs Biosphere Reserve				
Notable Species	<u>Birds</u> : One recorded species is listed in the Birds Directive Annex 1, Red Kite ( <i>Milvus milvus</i> ). In addition, one recorded species is designated under the W&CA Schedule 1 Part 1, Barn Owl ( <i>Tyto alba</i> ). One recorded species is designated under NERC S41, Turtle Dove ( <i>Streptopelia turtur</i> ).				
	Amphibians: One species is designated under the W&CA and the Habitats Regulations Schedule 2, Great Crested Newt ( <i>Triturus cristatus</i> ). One recorded species is designated under NERC S41, Common Toad ( <i>Bufo bufo</i> ).				
	Reptiles: Two recorded species are designated under NERC S41, Grass Snake ( <i>Natrix Helvetica</i> ) and Common Lizard ( <i>Zootoca vivipara</i> ).				
	<u>Invertebrates</u> : 21 recorded species are designated under NERC S41, including Stag Beetle ( <i>Lucanus cervus</i> ) and Small Heath ( <i>Coenonympha pamphilus</i> ).				
Review of Aerial Images	The settlement is generally surrounded with arable fields, grassland and scrub, consistent with coastal and floodplain grazing marsh.				
	High Wetland Habitat Potential Lewes Brooks and the Ouse Valley BOA				

Great Crested Newt Up to red Impact Risk Zone

PreparedFor: Lewes District Council

<sup>80</sup> Details provided by Sussex Biodiversity Records Centre

<b>–</b>	B 4 11
Parameter	Detail

Other Constraints None identified From Desk Study

#### **BNG** Opportunities

The site is immediately adjacent to SDNP. Depending on the quality of the existing habitats within the study area, it could potentially be enhanced to provide BNG provision. Priority Habitats and other habitats within the study area could potentially be enhanced to improve biodiversity value and increase habitat connectivity into the wider area whilst also potentially providing BNG provision.

Lewes Brooks and the Ouse Valley BOA offers opportunities for biodiversity enhancements and potential BNG provision.

### Other Opportunities

Potential for targeting Priority Species for Countryside Stewardship Targeting: Lapwing.

#### **Constraints**

- 3.113 The land surrounding the settlement is less suitable for development. It contains Priority Habitats (deciduous woodland and traditional orchards). S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred.
- 3.114 The Lewes Lawton Recover Mapping identified that the settlement is surrounded by areas of high wetland potential habitats.
- 3.115 The settlement is also constrained by the following designations: SDNP, Brighton and Lewes Downs Biosphere Reserve, Lewes Brooks and the Ouse Valley BOA
- 3.116 From review of aerial imagery, the settlement is generally surrounded with arable fields, grassland and scrub, consistent with coastal and floodplain grazing marsh.
- 3.117 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

#### **Opportunities**

- 3.118 Whilst the land surrounding the settlement could accommodate some limited development it could also provide BNG opportunities via habitat enhancement and / or creation.
- 3.119 Enhancement may be possible for the deciduous woodland and traditional orchard.
- 3.120 The Highland Wetland Potential could be realised.
- 3.121 The site is immediately adjacent to SDNP. Depending on the quality of the existing habitats within the site, this site could potentially be enhanced to provide BNG provision.

#### Land at South Chailey

3.122

# 3.123 Table 18 provides the biodiversity assessment for land surrounding South Chailey. A map of the area is included below.

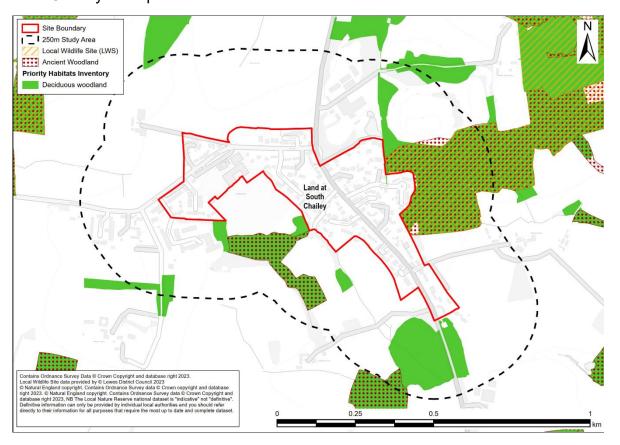


Table 18. Land at South Chailey Biodiversity Assessment

Parameter	Detail				
Size (ha)	N/A				
Developable Area (ha)	N/A				
Indicative Quantum of Development	N/A				
Priority Habitats (NERC S41 habitat) identified on MAGIC	Deciduous woodland (including irreplaceable ancient woodland habitat)				
Priority Species for Countryside Stewardship Targeting	Lapwing				
Site Designations	Kiln Wood and Starvecrow Wood LWS, and Middle Home Wood and Southam Farm LWS.				
	<u>Birds</u> : One recorded species is designated under the W&CA Schedule 1 Part 1, Barn Owl ( <i>Tyto alba</i> ). One recorded species is designated under NERC S41, Turtle Dove ( <i>Streptopelia turtur</i> ). One species is on the birds of				

<sup>&</sup>lt;sup>81</sup> Details provided by Sussex Biodiversity Records Centre

Parameter	Detail				
	conservation concern red list Nightingale ( <i>Luscinia megarhynchos</i> ).				
	<u>Bats</u> : One species of bat is recorded, designated under the W&CA and the Habitats Regulations, Brown Long- eared ( <i>Plecotus auritus</i> ).				
	Mammals: One recorded species is designated under NERC S41, West European Hedgehog ( <i>Erinaceus europaeus</i> ).				
	Invasive Species: Two recorded species are designated under W&CA Sch. 9, Rhododendron (Rhododendron ponticum) and Eastern Grey Squirrel (Sciurus carolinensis).				
Review of Aerial Images	The settlement is surrounded with large areas of woodland as well as agricultural fields.				
Lewes Lawton Recover Mapping Detail	High Wetland Habitat Potential Mid Ouse Floodzone BOA				
Great Crested Newt	Red				
Other Constraints From Desk Study	None identified				
BNG Opportunities	Priority Habitats and other habitats within the study area could potentially be enhanced to improve biodiversity value and increase habitat connectivity into the wider area to provide BNG provision. The Mid Ouse Floodzone BOA offers opportunities for biodiversity enhancement and BNG provision.				
Other Opportunities	Potential for targeting Priority Species for Countryside Stewardship Targeting: Lapwing.				

#### **Constraints**

- 3.124 The land surrounding the settlement is less suitable for development. It contains Priority Habitats (deciduous woodland some of which is irreplaceable ancient woodland habitat). S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred. It also includes Kiln Wood and Starvecrow Wood LWS (located immediately adjacent to the settlement boundary), and Middle Home Wood and Southam Farm LWS.
- 3.125 From review of aerial imagery, the settlement is surrounded with large areas of woodland as well as agricultural fields.
- 3.126 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

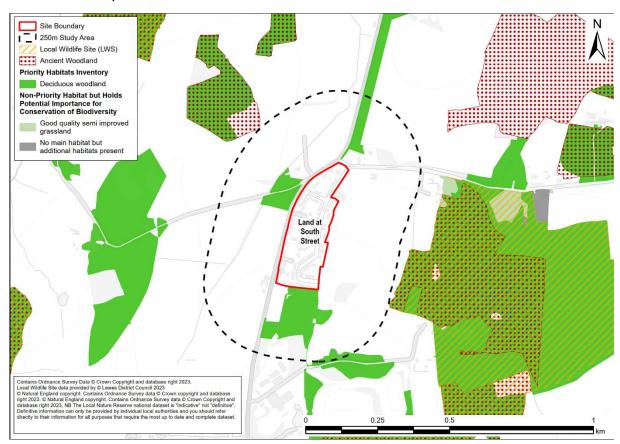
#### **Opportunities**

- 3.127 Whilst land surrounding the settlement could accommodate some limited development it could also provide BNG opportunities via habitat enhancement and / or creation.
- 3.128 Improve connectivity between areas of woodland.
- 3.129 The Highland Wetland Potential could be developed as could other opportunities within the BOA.
- 3.130 The site is within the Mid Ouse Floodzone BOA. Depending on the quality of the existing habitats within the site, this site could potentially be enhanced to provide BNG provision.

#### Land at South Street

3.131

3.132 Table 19 provides the biodiversity assessment for land surrounding South Street. A plan of the area is included below.



**Table 19. Land surrounding South Street Biodiversity Assessment** 

Parameter	Detail
Size (ha)	N/A
Developable Area (ha)	N/A
Indicative Quantum o	f N/A

Parameter	Detail			
Priority Habitats (NERC S41 habitat) identified on MAGIC	Good quality semi-improved grassland Deciduous woodland			
Priority Species for Countryside Stewardship Targeting	Lapwing			
Site Designations	Markstakes Common LWS			
	Birds: No designated species are recorded.			
Species Within c.50m of the Site <sup>82</sup>	<u>Mammals</u> : One recorded species is designated under NERC S41, West European Hedgehog ( <i>Erinaceus europaeus</i> ).			
	<u>Invertebrates</u> : One recorded species is designated under NERC S41, Brown Hairstreak ( <i>Thecla betulae</i> ).			
Review of Aerial Images	The settlement is surrounded with deciduous woodland, lines of tree, arable fields and grassland.			
Lewes Lawton Recover Mapping Detail	High Wetland Habitat Potential Local Wildlife Site (failing SDL160)			
Great Crested Newt Impact Risk Zone	Up to red			
Other Constraints From Desk Study	None identified			
BNG Opportunities	The Priority Habitats, LWS and surrounding habitats may have the potential for habitat enhancement and/or creation to provide BNG provision.			
Other Opportunities	Potential to target Priority Species for Countryside Stewardship Targeting: Lapwing.			
O ( 1 - ( -				

#### **Constraints**

- 3.133 The land surrounding the settlement is less suitable for development. It contains Priority Habitats (deciduous woodland (including irreplacable ancient woodland and good quality semi-improved grassland). S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred.
- 3.134 The Lewes Lawton Recover Mapping identified that the settlement is surrounded by the following areas: high wetland potential habitats and a Local Wildlife Site (failing SDL160).
- 3.135 The settlement is constrained by the following designation: Markstakes Common LWS.
- 3.136 From review of aerial imagery, the settlement is surrounded with deciduous woodland, lines of tree, arable fields, and grassland.

PreparedFor: Lewes District Council

<sup>82</sup> Details provided by Sussex Biodiversity Records Centre

3.137 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

#### **Opportunities**

- 3.138 Whilst the land surrounding the settlement could accommodate some limited development it could also provide BNG opportunities via habitat enhancement and / or creation.
- 3.139 Marstakes Common LWS could be enhanced.
- 3.140 The Highland Wetland Potential could be developed as could other opportunities within the BOA.

#### Land at Wivelsfield and Wivelsfield Green

3.141

3.142 Table 20 provides the biodiversity assessment for land surrounding Wivelsfield and Wivelsfield Green Chailey. A plan of the area is shown below.

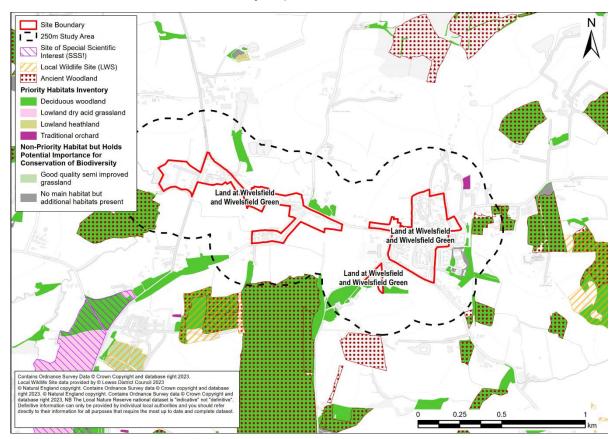


Table 20. Land surrounding Wivelsfield and Wivelsfield Green Biodiversity Assessment

Parameter	Detail
Size (ha)	N/A
Developable Area (ha)	N/A

Parameter	Detail			
Indicative Quantum of Development	N/A			
Priority Habitats (NERC S41 habitat) identified on MAGIC	Deciduous woodland (including irreplaceable ancient woodland) Traditional orchard			
Priority Species for Countryside Stewardship Targeting	Brown Hairstreak Lapwing			
Site Designations	Longridge Wood & Sedgebrook Marsh LWS - Ancient regenerating woodland of mature oak and hazel and hornbeam understory and aspen, birch and alder regrowth with an area of wet meadow and fen on the southwest boundary  Purchase Wood LWS - Ancient oak and hornbeam coppice woodland with areas of parkland, management of coppice needs to be carried out to thin out the canopy.			
Protected and Notable	Birds: No designated species are recorded.			
Species Within c.50m of the Site <sup>83</sup>	Mammals: One recorded species is designated under the Habitat Regulations and the W&CA, Hazel Dormouse (Muscardinus avellanarius). One recorded species is designated under NERC S41, West European Hedgehog (Erinaceus europaeus).			
	Reptiles: One recorded species is designated under NERC S41, Slow Worm ( <i>Anguis fragilis</i> ).			
	<u>Invasive Species</u> : One recorded species is designated under W&CA Sch. 9, Yellow Archangel ( <i>Lamiastrum galeobdolon subsp. argentatumponticum</i> ).			
Review of Aerial Images	The settlement is surrounded by agricultural fields and areas of woodland.			
Lewes Lawton Recover Mapping Detail	High wetland habitat potential Stanmer and Ditchling Downs BOA Local Wildlife Site (failing SDL160)			
Great Crested Newt Impact Risk Zone	Red			
Other Constraints From Desk Study	None identified			
BNG Opportunities	Ancient woodland, Priority Habitats, LWS (including Longridge Wood & Sedgebrook Marsh LWS which is failing SDL 160), and surrounding habitats may offer potential for habitat enhancement and/or creation to provide BNG opportunities. The Stanmer and Ditchling Downs BOA may offer BNG opportunities.			

<sup>&</sup>lt;sup>83</sup> Details provided by Sussex Biodiversity Records Centre

PreparedFor: Lewes District Council

Parameter	Detail			
Other Opportunities	Potential to target Priority Species for Countryside			
	Stewardship Targeting: Brown Hairstreak and Lapwing.			

#### **Constraints**

- 3.143 The land surrounding the settlement is less suitable for development. It contains Priority Habitats (deciduous woodland (including irreplaceable ancient woodland) and traditional orchard). S41 habitat must be given due consideration during any planning application and retention of the habitats is preferred.
- 3.144 The Lewes Lawton Recover Mapping identified that the settlement is surrounded by the following areas: Highland Wetland Habitat Potential, Stanmer and Ditchling Downs BOA and a Local Wildlife site (failing SDL160).
- 3.145 The settlement is also constrained by the following designations: Longridge Wood & Sedgebrook Marsh, and Purchase Wood LWS.
- 3.146 From review of aerial imagery, the settlement is surrounded by agricultural fields and areas of woodland.
- 3.147 The data search returned results for protected and notable species however this relates to the total land surrounding the site and not to any specific area. Full protected species surveys would be required to support any planning application. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment.

#### **Opportunities**

- 3.148 Whilst the land surrounding the settlement could potentially accommodate some limited development it could also provide BNG opportunities via habitat enhancement and/or creation.
- 3.149 Longridge Wood & Sedgebrook Marsh LWS (LWS Failing SDL 160) could be enhanced. The Highland Wetland Potential could be realised. The ancient woodland (an irreplaceable habitat) areas provide opportunities for enhancement. Surrounding habitats may offer potential for habitat enhancement and/or creation to enhance habitat connectivity into the wider area.

#### **Conclusions**

3.150 The following discussion is split into that for potential strategic allocations and for land surrounding settlements that are identified to be more suitable or less suitable for development. Fundamentally, the distinction between less and more suitable for development is relating to the ease at which biodiversity features could be replaced/ replicated.

#### **Potential Strategic Allocations**

3.151 The following discussion is split into potential strategic allocations that are more suitable or less suitable for development.

#### **More Suitable**

3.152 The following table (Table 21) is a summary of the suitability of the potential Sites currently being considered for allocation. Where a site is coloured **green**, it is considered '**more suitable**' for development because it is less constrained by the presence of NERC S41 habitats and Local Wildlife Sites (LWS) which should

either be preserved or compensated for by provision of replacement habitat (adding to BNG requirements).

- 3.153 Potential Site Allocations considered to be 'more suitable' for development, at least in part are:
  - Land North of Cookbridge (19HY)
  - Land North of Ringmer (51RG)
  - Land at Howells Bank Farm (67RG)
- 3.154 The table below provides detail of why the site has been assigned the 'more suitable' label.

# **Table 21 Biodiversity Assessment Conclusions (Potential Strategic Allocations: More Suitable)**

#### Site Biodiversity Assessment

#### for Overall Site Suitability for Development

This site is potentially suitable to be utilised as a development site. Existing mapping shows that the site does not include any land that falls within a protected area or land which falls within the definition of a NERC S41 habitat.

The site appears to consist primarily of arable farmland, however aerial photography indicates that there are some hedges and isolated trees within the area. Hedgerows would be considered an S41 habitats present on site. Any watercourses, if present on site would also be considered to be S41 habitats.

A small area of the site is an area of High Wetland Habitat Potential.

Land North of Cooksbridge (19HY (incl. 11HY))

of The site is located immediately adjacent to the SDNP, so consideration for this will be required during future planning with the site.

There is potential for development of the land. The loss of the S41 hedgerows and any watercourses would be a significant BNG loss, however the arable habitat, which is the majority of the land space, gives minimal BNG units. Given the size of the land parcel, suitable on-site offsetting is likely possible to create a >10% BNG score.

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

Land North of Ringmer (51RG)

of This site is suitable to be utilised as a development site. The site is not part of any protected or designated areas. Although existing mapping does not show any S41 habitats present on

site, aerial photography indicates that hedgerows are likely present on site. These would constitute a S41 habitat and must be given due consideration in future planning.

The site primarily consists of arable land. This site (or part thereof) could potentially be enhanced to provide BNG provision on site. Due to the often low quality of habitat provided by arable farmland enhancements within the site should be viable.

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy. This may include a reduction in the number of units deliverable within the site. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment. However, full protected species surveys would be required in any event to support a planning application.

This site is suitable to be utilised as a development site. The site is not part of any protected or designated areas. Although existing mapping does not show any S41 habitats present on site, aerial photography indicates that hedgerows are likely present on site. These would constitute a S41 habitat and must be given due consideration in future planning.

The site primarily consists of arable land. This site (or part thereof) could potentially be enhanced to provide BNG provision on site. Due to the often low quality of habitat provided by arable farmland biodiversity enhancements within the site should be viable.

Bank Farm (67RG)

Land at Howells The data search returned results for a single protected and notable species. It is not anticipated that the presence of protected or notable species would pose deliverability issues with regard to the site, however, their presence will require consideration in the master-planning and ecological avoidance and mitigation strategy. A bespoke suite of notable and protected species surveys will be required to inform any future planning at this site. This may include a reduction in the number of units deliverable within the site. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment. However, full protected species surveys would be required in any event to support a planning application.

#### Less Suitable

3.155 The table below (Table 22) provides detail of why the site has been assigned the 'less suitable' label. Where a site is coloured amber, it is considered 'less suitable' for development because it is more constrained by the presence of NERC S41 habitats and Local Wildlife Sites (LWS) which should either be preserved or compensated for by provision of replacement habitat (adding to BNG requirements). This category also includes other notable biodiversity features. Potential Strategic Allocations that are identified as being 'less suitable' are:

Land in between Plumpton Green and South Chailey (11EC)

**Table 22 Biodiversity Assessment Conclusions (Potential Site Allocations: Less Suitable)** 

# **Site for Biodiversity Overall Site Suitability for Development Assessment**

Mapping shows the presence of irreplaceable ancient woodland habitat (an S41 habitat and an irreplaceable habitat) within the site, to the north and east. Aerial photography indicates that hedgerows are present on site which would also be considered an S41 habitat. Any watercourses on site could also be considered to be S41 habitat. S41 habitats must be given due consideration during planning for the site.

The rest of the site primarily consists of arable land. This site (or part thereof) could potentially be enhanced to provide BNG provision on site. Due to the often low quality of habitat provided by arable farmland enhancements within the site should be viable.

The site is located immediately adjacent to the SDNP, so consideration for this will be required during future planning with the site.

Land in between Plumpton Green and South Chailey (11EC)

Chailey
Chailey
Chailey
Although the S41 habitats should be protected there is potential for development on some of the land. Developing the southern area of the site may be possible. The loss of the S41 hedgerows would be a significant BNG loss. The arable habitat which forms the majority of the land space, however, forms minimal BNG units. Given the size of the land parcel, suitable on-site offsetting is likely possible to create a >10% BNG score.

Due to the agricultural nature of the land parcel and is size in comparison to the significant farming land surrounding it, species that utilise this habitat type, namely breeding birds and badger, are not likely to pose a significant deliverability issue.

The site is immediately adjacent to open space in the form of agricultural fields. Agi-environmental schemes as well as improvements to hedgerows and field edges could vastly improve BNG within the area. The block of woodland to the northeast could be extended and enhanced to significantly improve BNG.

#### **Land Surrounding Settlements**

3.156 The following discussion is split into land surrounding settlements that are considered more suitable for development or less suitable for development.

3.157 It should be noted that the following discussion does not mean that the entirety of the land surrounding a settlement is/ isn't more/ less suitable for development, it is a wide-ranging view of the land surrounding a settlement in general. It may be that certain land parcels are more/ less suitable to develop than others. Land parcels themselves have not been identified, only notable biodiversity features are documented.

#### **More Suitable**

- 3.158 The following table (Table 23Error! Reference source not found.) is a brief summary of the suitability of the land surrounding settlements for development. Where land surrounding a settlement is coloured green, it is considered 'more suitable' for development because it is less constrained by the presence of NERC S41 habitats and Local Wildlife Sites (LWS) which should either be preserved or compensated for by provision of replacement habitat (adding to BNG requirements). Land surrounding allocations that are identified as being 'more suitable' are:
  - Land at Barcombe Cross
  - Land at Broyle Side
  - Land at Cooksbridge
- 3.159 The table below provides detail of why the site has been assigned the 'more suitable' label.

# **Table 23 Biodiversity Assessment Conclusions (Land Surrounding Settlements: More Suitable)**

#### Site Biodiversity Assessment

for Overall Site Suitability for Development

The land surrounding Barcombe Cross is potentially suitable for development. It contains Priority Habitats (deciduous woodland and coastal and floodplain grazing marsh). The Lewes Lawton Recover Mapping identified that the settlement has habitats of high wetland potential and BOAs. The settlement is also constrained by the following designations: Dismantled Railway Line, Barcombe LWS and Lewes Down BOA.

These designations would all require consideration if development were to be bought forward on land surrounding the settlement.

# Land at Barcombe Cross

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

From review of aerial imagery, the settlement is surrounded by rough grass fields with a network of hedgerows/lines of trees. There may be potential for these habitats and others associated with designated sites to be enhanced to provide BNG capacity.

The land surrounding Broyle Side is potentially suitable for some development. It contains some Priority Habitats at relatively low levels (deciduous woodland). The Lewes Lawton Recover Mapping identified areas of high wetland habitat potential. The settlement is also constrained by the following designations: Lewes Brooks and the Ouse Valley BOA

These designations would all require consideration if development were to be bought forward on land surrounding the settlement.

# Side

Land at Broyle The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

> From review of aerial imagery, the settlement is surrounded with arable fields with a well-connected network of hedgerows and row of trees. There may be potential for these habitats and others associated with designated sites to be enhanced to provide BNG capacity.

> The land surrounding Cooksbridge is potentially suitable for development. It contains the deciduous woodland Priority Habitat. The Lewes Lawton Recover Mapping identified that the settlement is surrounded by the following areas: B-Lines (BugLife), Lewes Brooks and the Ouse Valley BOA. The settlement is also constrained by the following designations: Lewes Brooks and the Ouse Valley BOA.

### Land Cooksbridge

These designations would all require consideration if development at were to be bought forward on land surrounding the settlement.

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site. however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

From review of aerial imagery, the settlement is surrounded with agricultural fields and rough grassland with a network of woodland and hedgerows.

#### **Less Suitable**

- 3.160 Where the land surrounding a settlement is coloured **amber**, it is considered 'less suitable' for development because it is more constrained by the presence of existing wildlife designations/ features or is more likely to pose significant protected species constraints based on suitable habitat and available desk-study records. Land surrounding settlements that are identified as being 'less suitable'
  - Land at Seaford

- Land at Newhaven
- Land at Peacehaven and Telscombe Cliffs
- Land at Chailey
- Land at Newick
- Land at North Chailey
- Land at Plumpton Green
- Land at Ringmer
- Land at South Chailey
- Land at South Street
- Land at Wivelsfield and Wivelsfield Green
- 3.161 The table below (Table 24) provides detail of why the site has been assigned the 'less suitable' label.

# **Table 24 Biodiversity Assessment Conclusions (Land Surrounding Settlements:** Less Suitable)

#### Site Biodiversity Assessment

for Overall Site Suitability for Development

The land surrounding Seaford is less suitable for development. The land surrounding the settlement is constrained by Priority Habitats (maritime cliff and slope, deciduous woodland, lowland calcareous grassland, coastal and floodplain grazing marsh, saline lagoons, and coastal vegetated shingle), B-Lines (BugLife), High Wetland Habitat Potential and SSSI units (not favourable), the SDNP, Brighton and Lewes Downs Biosphere Reserve, Seaford to Beachy Head SSSI, Old Brickfield LWS, Tide Mills LWS, Bishopstone downs LWS, Denton Hill Downs LWS, Seaford head LWS, Seaford head LNR, and Beachy Head West MCZ.

These designations would all require consideration if development were to be bought forward on land surrounding the settlement.

#### Land at Seaford

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy. This may include a reduction in the number of units deliverable within the site. Inevitably given the high-level nature of this study other protected/notable species may be present and could impact the assessment. However, full protected species surveys would be required in any event to support a planning application.

From review of aerial imagery, the dominant habitats surrounding the settlement are arable land mixed with rough grassland and scrub, consistent with coastal and floodplain grazing marsh. There may be potential for these habitats and others associated with designated sites to be enhanced to provide BNG capacity.

The land surrounding Newhaven is less suitable for development. It contains Priority Habitats (deciduous woodland, good quality semi-improved grassland, maritime cliff and slope, mudflats, and coastal and floodplain grazing marsh). The Lewes Lawton Recovery Mapping identified that the settlement is surrounded by the following areas: B-Lines (BugLife), East Brighton Downs BOA, Lewes Brooks and the Ouse Valley BO, and SSSI (Favourable). The settlement is also constrained by the following designations: SDNP, Brighton and Lewes Downs Biosphere Reserve, East Brighton Downs BOA, Lewes Brooks and the Ouse Valley BOA, Castle Hill LNR and LWS, Brighton to Newhaven Cliffs SSSI (Favourable status), Peacehaven Golf Course LWS, Newhaven Refuse Tip LWS, Tide Mills LWS, and Bishopstone Downs LWS

#### Land Newhaven

These designations would all require consideration if development were to be bought forward on land surrounding the settlement.

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

From review of aerial imagery, the settlement is bordered on one side by the coast and generally surrounded with arable fields, woodland, grassland and scrub, consistent with coastal and floodplain grazing marsh. The River Ouse passes through Newhaven. There may be potential for these habitats and others associated with designated sites to be enhanced to provide BNG capacity.

### Land at Peacehaven and Telscombe Cliffs

The land surrounding Peacehaven and Telscombe Cliffs is less suitable for development. It contains Priority Habitats (maritime cliff and slope, good quality semi-improved grassland, and deciduous woodland). The Lewes Lawton Recovery Mapping identified that the settlement is surrounded by the following areas: High Wetland Habitat Potential, East Brighton Downs BOA, B-Lines (BugLife), Brighton to Newhaven Cliffs SSSI units (not favourable), Local Wildlife site (failing SDL160). The settlement is also constrained by the following designations: SDNP, Brighton and Lewes Downs Biosphere Reserve, East Brighton Downs BOA, Brighton to Newhaven Cliffs SSSI, Peacehaven Heights LWS, and Halcombe Farm LWS.

These designations would all require consideration if development were to be bought forward on land surrounding the settlement.

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

From review of aerial imagery, the settlement is bordered on one side by the coast and generally surrounded with arable fields, small areas of woodland, grassland and scrub, consistent with coastal and floodplain grazing marsh. There may be potential for these habitats and others associated with designated sites to be enhanced to provide BNG capacity.

The land surrounding Chailey is less suitable for development. It contains the deciduous woodland Priority Habitat in all directions. The Lewes Lawton Recovery Mapping identified that the settlement is surrounded by the following: Areas with High Wetland Habitat Potential. The settlement is also constrained by the following designations: Chailey Common LNR Chailey Churchyard LWS.

These designations would all require consideration if development were to be bought forward on land surrounding the settlement.

#### Land at Chailey

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

From review of aerial imagery, the settlement is bordered on one side by the coast and generally surrounded with arable fields, small areas of woodland, grassland and scrub, consistent with coastal and floodplain grazing marsh.

#### Land at Newick

The land surrounding Newick is less suitable for development. It contains Priority Habitats (deciduous woodland and traditional orchard). The Lewes Lawton Recovery Mapping identified that the settlement is surrounded by the following: Areas with High Wetland Habitat Potential and Chailey Warren LWS (Failing). The settlement is also constrained by the following designations: Mid Ouse Floodzone BOA, and Founthill Wood North LWS. These designations would all require consideration if development were to be bought forward on land surrounding the settlement.

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these

species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

From review of aerial imagery, the settlement is surrounded with agricultural fields with a network of hedgerows and woodland, there is deciduous woodland to the north.

The land surrounding North Chailey is less suitable for development. It contains Priority Habitat (deciduous woodland). S41 habitat must be given due consideration during any planning application and retention of the habitats is recommended. The study area includes Areas with High Wetland Habitat Potential and the Western Ouse Streams and Ashdown Forest BOA. The settlement is also constrained by the following designations: Chailey Common SSSI and LNR. Frick Wood Heathland LWS. These designations would all require consideration if North development were to be bought forward on land surrounding the settlement.

#### Land at Chailey

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

From review of aerial imagery, the settlement is surrounded by rough grass fields with a network of hedgerows/lines of trees.

The land surrounding Plumpton Green is less suitable for. It contains Priority Habitats (deciduous woodland). The Lewes Lawton Recovery Mapping identified that the settlement is surrounded by the areas of High Wetland Habitat Potential. The settlement is also constrained by the Stanmer and Ditchling Downs BOA. These designations would all require consideration if development were to be bought forward on land surrounding the settlement.

# Green

Land at Plumpton The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

> From review of aerial imagery, the settlement is surrounded by rough grass fields with a network of hedgerows/lines of trees. These could be enhanced provide improved biodiversity value and provide habitat connectivity into the wider area.

#### Land at Ringmer

The land surrounding Ringmer is less suitable for development. It contains Priority Habitats (deciduous woodland and traditional

orchards). The Lewes Lawton Recovery Mapping identified that the settlement is surrounded by areas of high wetland potential habitats. The settlement is also constrained by the following designations: SDNP, Brighton and Lewes Downs Biosphere Reserve, Lewes Brooks and the Ouse Valley BOA

These designations would all require consideration if development were to be bought forward on land surrounding the settlement.

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

From review of aerial imagery, the settlement is generally surrounded with arable fields, grassland and scrub, consistent with coastal and floodplain grazing marsh.

The land surrounding South Chailey is less suitable for development. It contains Priority Habitats deciduous woodland. The Lewes Lawton Recovery Mapping identified that the settlement is surrounded by High Wetland Potential Habitats. These designations would all require consideration if development were to be bought forward on land surrounding the settlement.

# Land at South Chailey

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

From review of aerial imagery, the settlement is surrounded with large areas of woodland as well as agricultural fields.

### Land at South Street

The land surrounding South Street is less suitable for development. It contains Priority Habitats (deciduous woodland and good quality semi-improved grassland). The Lewes Lawton Recovery Mapping identified that the settlement is surrounded by the following areas: high wetland potential habitats and High wetland habitat potential and a Local Wildlife site (failing SDL160), The settlement is also constrained by the designated Markstakes Common LWS.

These designations would all require consideration if development were to be bought forward on land surrounding the settlement.

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these

species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

From review of aerial imagery, the settlement is surrounded with deciduous woodland, lines of tree, arable fields, and grassland.

The land surrounding Wivelsfield and Wivelsfield Green is less suitable for development. It contains Priority Habitats (deciduous woodland and traditional orchard). The Lewes Lawton Recovery Mapping identified that the settlement is surrounded by the following areas: highland wetland habitat potential, Stanmer and Ditchling Downs BOA and a Local Wildlife site (failing SDL160). The settlement is also constrained by the following designations: Stanmer and Ditchling Downs BOA, Longridge Wood & Sedgebrook Marsh, and Purchase Wood LWS.

Land at Wivelsfield and Wivelsfield Green

at These designations would all require consideration if and development were to be bought forward on land surrounding the een settlement.

The data search returned results for protected and notable species. It is not anticipated that the presence of any of these species would pose deliverability issues with regard to the site, however, their presence will require considerable consideration in the master-planning and ecological avoidance and mitigation strategy.

From review of aerial imagery, the settlement is surrounded by agricultural fields and areas of woodland.

#### Highly unsuitable

- 3.162 A third category (although none have been identified) would be 'highly unsuitable' where land outside of a settlement boundary is dominated by irreplaceable habitats and SSSI sites, where the presence of biodiversity could make development in that locationhighly unsuitable.
- 3.163 Prior to any of these sites being taken forward, it is recommended that a full suite of ecological surveys are undertaken by the site promotor to help inform any proposed development. This includes (but is not limited to) Phase 1/ Habitats UK habitat surveys and protected species surveys. No sites are considered highly unsuitable at this stage. Upon the detailed ecological surveys of each location, the sites suitability for development and provision of BNG may change.

### **Biodiversity Net Gain Typologies**

- 3.164 This section details the Biodiversity Metric 3.1 calculations for each development typology. Linear features were not included within this assessment as it was assumed that linear features such as hedgerows and ditches if present would be retained within the development. Even if retained and unimpacted by the development, there would still be a need to increase the BNG by 10% on these linear habitats, separate to the habitat areas. Linear features such as ditches and hedgerows can significantly affect the BNG calculations. However, at this stage there is no information regarding how linear features would be handled. For all typologies it was considered that attempting to include linear features at this stage would add further uncertainty to the assumptions (without a site masterplan) without adding much benefit to the broad analysis. The inclusion of linear features will therefore need reviewing (as will all the BNG calculations) when planning applications with site masterplans are available for individual development sites.
- 3.165 Biodiversity net gains of 10% or more are concluded for each site in Table 4848. A figure of 10% has been used because that is the legal minimum, although it is noted that Lewes District Council is considering a higher Net Gain requirement. The below will give an idea of the land requirement for 10% BNG and thus indicate how much greater the land requirement may be for higher levels of net gain.

### **Small Greenfield Residential**

#### **On-site Baseline Habitat Units**

- 3.166 For this assessment two different off-site scenarios were calculated. The first is to enhance existing Grassland: Floodplain Wet Mosaic (CFGM) to a better condition. The output of this calculation is an area of this habitat that will need to be improved. This scenario would meet Metric 3.1's strict 'Trading Rules'. As detailed in Table 25, the Metric requires that where Floodplain Wet Mosaic is lost, this needs to be replaced with the same habitat, rather than simply other habitats that amount to the necessary number of credits to demonstrate BNG.
- 3.167 For comparison, a second scenario has been calculated in order to identify the number of off-site credits that would be required, without specific reference to the constraints imposed by the Metric Trading Rules. This will enable a typical total quantum of off-site BNG provision to be calculated. For this second scenario, the habitat 'Other Neutral Grassland' was chosen for off-site provision. This habitat type is a relatively common habitat type and relatively easy to recreate. Subsequent typologies will use this same habitat type (Other Neutral Grassland') for their BNG calculations. By providing this scenario, the calculation will contain less variables and enables comparisons with the subsequent typologies.

#### **On-Site Baseline Habitat Units**

3.168 Table 25 identifies the baseline habitat area, habitat units and BNG parameters (condition etc.) within a small greenfield residential site of 1.2 ha in size, with potential to deliver c 35 dwellings.

Table 25. Baseline Area-Based Habitats and Calculations

Habitat type (UKHab)	Area to be Lost (ha)	Distinctiveness	Condition	•		Suggested action to address habitat losses
Grassland: (Other neutral grassland)	1.2	Medium	Moderate	Low Strategic Significance	9.6	Same broad habitat or a higher distinctiveness habitat required (≥)
Total	1.2	-	-	-	9.6	-

#### **Post-Development**

3.169 Due to the small nature of this site, it is assumed that all habitats within the site will be lost as part of the development (i.e., 100%). To ensure a minimum of a 10% BNG, off-site habitat provision will be required.

#### **Off-Site Baseline Habitat Units (Floodplain Wet Mosaic)**

3.170 Table 26 shows the baseline habitat area with a hypothetical grassland location within the District.

#### Table 26. Off-Site Area-Based Habitat Baseline (Floodplain Wet Mosaic)

Habitat type (UKHab)	Area (ha)	Distinctiveness	Condition	Strategic significance	Habitat Units
Grassland: Floodplain Wet Mosaic	3.05	High	Fairly Poor	Low strategic significance	27.45
Total	3.05	-	_	_	27.45

3.171 Table 27 shows the off-site post-enhancement Floodplain Wet Mosaic habitat provision. It shows the change in habitat condition keeping the distinctiveness as Medium but increasing the condition from Fairly Poor to Fairly Good.

#### **Table 27 Off-Site Post-Enhancement Area-Based Habitats**

Habitat type (UKHab)	Area (ha)	Distinctiveness Change	Condition Change	Strategic significance	Habitat Units
Grassland: Floodplain Wet Mosaic	3.05	High - High	Fairly Poor - Fairly Good	<ul> <li>Low strategic significance</li> </ul>	38.08
Total	3.05	-	-	-	38.08

#### **Off-Site Baseline Habitat Units (Other Neutral Grassland)**

3.172 To provide consistency with the other typologies this scenario provides Other Neutral Grassland as the off-site habitat provision. It should be noted that this is a hypothetical scenario for purposes of reference. Table 28Table 2828 shows the baseline habitat area within a hypothetical grassland location within the District.

#### Table 2828. Off-Site Area-Based Habitat Baseline (Other Neutral Grassland)

Habitat type (UKHab)	Area (ha)	Distinctiveness	Condition	Strategic significance	Habitat Units
Grassland: Other neutral grassland	3.80	Medium	Fairly Poor	Low strategic significance	22.80
Total	3.80	-	-	-	22.80

3.173 Table 29Table 2929 shows the off-site post-enhancement 'Other Neutral Grassland' habitat provision. It shows the change in habitat condition, keeping the distinctiveness as Medium but increasing the condition from Fairly Poor to Fairly Good.

#### Table 2929Off-Site Post-Enhancement Area-Based Habitats

Habitat type (UKHab)		Distinctiveness Change	Condition Change	Strategic significance	Habitat Units
Grassland: Other neutral grassland	3.80	Medium- Medium	Fairly Poor – Fairly Good	Low strategic significance	33.44
Total	3.80	-	-	-	33.44

#### **Summary**

- 3.174 All baseline habitats and habitats created are present within the accompanying metric assessment for the Proposed Development (Appendix B).
- 3.175 The loss of 1.2 ha of Grassland: Other Neutral Grassland of moderate condition will result in the loss of 9.5 Habitat Units. To replace the loss of this habitat offsite habitat creation/ enhancement is identified. It is assumed that the replacement habitat will be within the Lewes District Council's boundary, thus ensuring the off-site provision is within the lowest Spatial Risk Category (Compensation inside LPA or NCA, or deemed to be sufficiently local, to the site of biodiversity loss). Enhancement of 3.05 ha of Grassland: Floodplain Wet Mosaic from Fairly Poor to Fairly Good condition, as identified in Table 2929, will result in a 10.76% net percentage change. Therefore, it can crudely be assumed that to achieve 10% BNG for a typical 'small greenfield residential' site, approximately 3 ha of grassland offsite would need to be enhanced.
- 3.176 Enhancement of 3.80 ha of Grassland: Other Neutral Grassland from Fairly Poor to Fairly Good condition, as identified in Table 2929, will result in a 10.88% net percentage change. Therefore, it can crudely be assumed that to achieve 10% BNG for a typical 'small greenfield residential' site, approximately 4 ha of grassland offsite would need to be enhanced.

#### Medium Greenfield Residential

#### **On-Site Baseline Habitat Units**

3.177 Table 30Table 30 identifies the baseline habitat area habitat units and BNG parameters (condition etc.) within a medium greenfield residential site of 5.79 ha in size. with potential to deliver c. 100 homes within 4 ha. of the site.

#### Table 30. Baseline Area-Based Habitats

Habitat type (UKHab)	Area (ha)	Distinctiveness	Condition	Strategic significance	Habitat Units	Suggested action to address habitat losses
Grassland: Other neutral grassland	5.79	Medium	Moderate	Low strategic significance	46.32	Same broad habitat or a higher distinctiveness habitat required (≥)
_	5.79	_	_	-	46.32	

#### **Post-Development**

3.178 Approximately 1.79 ha of habitats (Grassland: Other neutral grassland) will be retained and enhanced on-site. The change in the amount of on-site habitat that is to be retained and enhanced to ensure a minimum of a 10% BNG is detailed in Table 31.

#### Table 31 On-Site Post-Enhancement Area-Based Habitats

Habitat type (UKHab)	Area (ha)	Distinctiveness Change	Condition Change	Strategic significance	Habitat Units Delivered
Grassland: Other neutral grassland	1.79	Medium – Medium	Moderate - Good	Low Strategic Significance	189.33
Total	1 79	_	_	_	19 33

3.179 Even with the provision of 1.79 ha of enhanced Grassland: Other neutral grassland on site, this results in a Biodiversity Net Gain of -58.26%, and as such, to achieve a positive 10% BNG, additional off-site BNG provision will also be required. See Appendix B for full calculations.

#### **Off-Site Baseline Habitat Units (Other Neutral Grassland)**

3.180 To provide consistency with the other typologies this scenario provides Other Neutral Grassland as the off-site habitat provision. As previously detailed, this is a hypothetical scenario for purposes of reference. Table 32Table 32shows the baseline habitat area within a hypothetical grassland location located within the District.

#### Table 32. Off-Site Area-Based Habitat Baseline (Other Neutral Grassland)

Habitat type (UKHab)	Area (ha)	Distinctiveness	Condition	Strategic significance	Habitat Units
Grassland: Other neutral grassland	11.5	Medium	Moderate	Low Strategic Significance	92.00
Total	11.5	-	-	-	92.00

3.181 Table 33Table 33 shows the off-site post-enhancement Other Neutral Grassland habitat provision. It shows the change in habitat condition, keeping the distinctiveness as Medium but increasing the condition from Moderate to Good.

#### Table 33 Off-Site Post-Enhancement Area-Based Habitats

Habitat type (UKHab)	Area	<b>Distinctiveness</b>	Condition	Strategic	Habitat
	(ha)	Change	Change	significance	Units

Total	11.5	_	-	_	124.21
Grassland: Other neutral grassland	11.5	Medium- Medium	Moderate Good	- Low Strategic Significance	124.21

#### **Summary**

- 3.182 All baseline habitats and habitats created are present within the accompanying metric assessment for the Proposed Development (Appendix B).
- 3.183 The loss of 5.79 ha of greenfield typology habitat will result in the loss of 46.32 Habitat Units. To replace the loss of the greenfield type habitats, both on-site and off-site habitat enhancement is identified. It is assumed that the off-site replacement habitat will be within the Lewes District Council's boundary, thus ensuring the off-site provision is within the lowest Spatial Risk Category (Compensation inside LPA or NCA, or deemed to be sufficiently local, to the site of biodiversity loss).
- 3.184 Enhancement of 1.79 ha of Grassland: Other Neutral Grassland on site from Moderate to Good condition, and the enhancement of c 11.5 ha of Grassland: Other Neutral Grassland off-site from Moderate to Good condition, will result in a 11.28% net percentage change. Therefore, it can crudely be assumed that to achieve 10% BNG for a typical 'large greenfield residential' site, approximately 1 ha to 2 ha of Grassland: Other neutral grassland on-site will need to be enhanced and a further 11 ha to 14 ha of grassland offsite would need to be enhanced.
- 3.185 It should be noted that in practice BNG does not simply require the relevant number of credits to be achieved but also has a series of Trading Rules. This is because it is not considered appropriate to replace a strategically significant habitat (such as Habitats of Principal Importance), with a lesser habitat, even if the lesser habitat is enhanced to be in the best condition possible. Linear features such as ditches and hedgerows can significantly affect the BNG calculations. However, since there is no information regarding at this stage how linear features would be handled for any allocated site it was considered that attempting to include them at this stage would further add to the assumptions needed without a site masterplan without adding much benefit to the broad analysis undertaken. This will therefore need reviewing (as will all the BNG calculations) when planning applications with site masterplans are available.

### **Large Greenfield Residential**

#### **On-Site Baseline Habitat Units**

3.186 Table 34 Table 34 identifies the baseline habitat area habitat units and BNG parameters (condition etc.) within a large greenfield residential site of 11.97 ha in size. with potential to deliver c. 160 homes within 5.4 ha of the site.

#### Table 34. Baseline Area-Based Habitats

Habitat (UKHab)	type	Area (ha)	Distinctiveness	Condition		Habitat Units	Suggested to address losses	
Grassland: Other n grassland	: eutral	11.97	Medium	Fairly Poor	Low strategic significance	71.82	Same broad or a distinctivenes habitat requir	higher ss

**- 11.97** - - 71.82

#### **Post-Development**

3.187 Approximately 6.57 ha of habitats (Grassland: Other neutral grassland) will be retained and enhanced on-site. The change in the amount of on-site habitat that is to be retained and enhanced to ensure a minimum of a 10% BNG is detailed in Table 35.

# On-Site Baseline Habitat Units (Other Neutral Grassland) Table 35Table 35. On-Site Area-Based Habitat Baseline (Other Neutral Grassland)

Habitat type (UKHab)	Area (ha)	Distinctiveness Change	Condition Change	Strategic significance	Habitat Units Delivered	
Grassland: Other neutral grassland	6.57	Medium- Medium	Fairly Poor - Fairly Good	Low Strategic Significance	57.82	
Total	6.57	_	_	_	57.82	

3.188 Even with the provision of 6.57 ha of enhanced Grassland: Other Neutral Grassland on site, this results in a BNG of -19.49%, and as such, to achieve a positive 10% BNG, additional off-site BNG provision will also be required. See Appendix B for full calculations.

#### **Off-Site Baseline Habitat Units (Other Neutral Grassland)**

- 3.189 To provide consistency with the other typologies this scenario provides Other Neutral Grassland as the off-site habitat provision. As previously detailed, this is a hypothetical scenario for purposes of reference.
- 3.190 Table 36 shows the baseline habitat area within a hypothetical grassland location located within the District.

#### Table 36 Off-Site Area-Based Habitat Baseline (Other Neutral Grassland)

Habitat type (UK	(Hab)	Area (ha)	Distinctiveness	Condition	Strateg signific	•	Habitat Units
Grassland: neutral grassland	Other	8	Medium	Fairly Poor	Low Signific	Strategic ance	48
Total		8	-	-	-		48

3.191 Table 37 Table 37 shows the off-site post-enhancement Other Neutral Grassland habitat provision. It shows the change in habitat condition, keeping the distinctiveness as Medium but increasing the condition from Moderate to Good.

#### **Table 37 Off-Site Post-Enhancement Area-Based Habitats**

Habitat type (UKHab)		Distinctiveness Change	Condition Change	Strategic significance	Habitat Units
Grassland: Other neutral grassland	8	Medium- Medium	Failry Poor – Fairly Good	Low strategic significance	70.41
Total	8	_	_	_	70.41

#### **Summary**

- 3.192 All baseline habitats and habitats created are present within the accompanying metric assessment for the Proposed Development (Appendix B).
- 3.193 The loss of 5.4 ha of greenfield typology habitats will result in the loss of 71.82 Habitat Units. To replace the loss of the greenfield type habitats, both on-site and off-site habitat enhancement is identified. It is assumed that the replacement habitat will be within the Lewes District Council's boundary, thus ensuring the off-site provision is within the lowest Spatial Risk Category (Compensation inside LPA or NCA, or deemed to be sufficiently local, to the site of biodiversity loss).
- 3.194 Enhancement of 6.57 ha of Grassland: Other Neutral Grassland on site from Fairly Poor to Fairly Good condition, and the enhancement of c 8 ha of Grassland: Other Neutral grassland off-site from Moderate to Good condition, will result in a 11.71% net percentage change. Therefore, it can crudely be assumed that to achieve 10% BNG for a typical 'large greenfield residential' site, approximately 5 ha to 7 ha of Grassland: Other Neutral Grassland onsite will need to be enhanced and a further 7 ha to 10 ha of grassland off-site would need to be enhanced.
- 3.195 It should be noted that in practice BNG does not simply require the relevant number of credits to be achieved but also has a series of Trading Rules. This is because it is not considered appropriate to replace a strategically significant habitat (such as Habitats of Principal Importance), with a lesser habitat, even if the lesser habitat is enhanced to be in the best condition possible. Linear features such as ditches and hedgerows can significantly affect the BNG calculations. However, since there is no information regarding at this stage how linear features would be handled for any allocated site it was considered that attempting to include them at this stage would further add to the assumptions needed without a site masterplan without adding much benefit to the broad analysis undertaken. This will therefore need reviewing (as will all the BNG calculations) when planning applications with site masterplans are available.

#### **Small Brownfield Residential**

#### **On-Site Baseline Habitat Units**

3.196 Table 38 Table 38 identifies the baseline habitat area, habitat units and BNG parameters (condition etc.) within a small brownfield residential site of c. 2.0 ha in size allocated to deliver c. 60 dwellings.

#### Table 38. Baseline Area-Based Habitats

Habitat t (UKHab)	ype	Area (ha)	Distinctiveness	Condition	Strategic significance	Habitat Units	Suggeste action address losses	to
Urban: O Mosaic Habitat Previously Developed Lan		2	High	Moderate	Low Strategic Significance	24.0	Same required	habitat
Total		2.0	-	-	-	24.0	-	

#### **Post-Development**

3.197 Due to the small nature of this site, it is assumed that all habitats within the site will be lost as part of the development. To ensure a minimum of a 10% BNG, off-

site habitat provision will be required. As detailed in the 'Suggested action to address habitat loss' column (as taken from the BNG Matrix 3.1), any off-site provision will be required to provide the 'Same habitat required' i.e., Urban: Open Mosaic Habitats on Previously Developed Land.

#### **Off-Site Baseline Habitat Units (Other Neutral Grassland)**

- 3.198 Table 39Table 39Table 35 shows the baseline habitat area within a hypothetical grassland location located within the District.
- 3.199 To provide consistency with the other typologies this scenario provides Other Neutral Grassland as the off-site habitat provision. As previously detailed, this is a hypothetical scenario for purposes of reference. The Metric 3.1 calculator identifies that to be in accordance with its 'Trading Rules' certain existing habitats that are to be lost will require replacement with similar habitats of equal or better distinctiveness and/ or condition (full details are shown in Table 39Table 39) to provide the 10% BNG. As such, the following provision will not satisfy the Trading Rules, but is illustrative of how much off-site habitat provision may be required for BNG provision for this typology.

Table 39. Off-Site Area-Based Habitat Baseline (Other Neutral Grassland)

Habitat type (I	JKHab)		Area (ha)	Distinctiveness	Condition	Strategic significance	Habitat Units
Grassland: grassland	Other	neutral	9.5	Medium	Fairly Poor	Low Strategic Significance	57
Total			9.5	-	-	-	57

3.200 Table 40Table 40.40 shows the off-site post-enhancement other neutral grassland habitat provision. It shows the change in habitat condition, keeping the distinctiveness as Medium but increasing the condition from Moderate to Good.

Table 40.40 Off-Site Post-Enhancement Area-Based Habitats

			,		
Grassland: Other neutral grassland	9.5	Medium- Medium	Fairly Poor – Fairly Good	Low Strategic Significance	83.61
Habitat type (UKHab)	Area (ha)	Distinctiveness Change	Change	Strategic significance	

#### Summary

- 3.201 All baseline habitats and habitats created are present within the accompanying metric assessment for the Proposed Development (Appendix B).
- 3.202 The loss of 2.0 ha of habitats associated with brownfield sites will result in the loss of 24 Habitat Units. To replace the loss of the brownfield type habitats, off-site habitat creation/ enhancement is identified. It is assumed that the replacement habitat will be within the Lewes District Council's boundary, thus ensuring the off-site provision is within the lowest Spatial Risk Category (Compensation inside LPA or NCA, or deemed to be sufficiently local, to the site of biodiversity loss). Enhancement of 9.5 ha of Grassland: Other Neutral Grassland from Fairly Poor to Fairly Good condition, as (identified in Table 40.40)

will result in a 10.88% net percentage change. Therefore, it can crudely be assumed that to achieve 10% BNG for a typical 'small brownfield residential' site, approximately 8 ha to 12 ha of grassland offsite would need to be enhanced.

3.203 It should be noted that in practice BNG does not simply require the relevant number of credits to be achieved but also has a series of Trading Rules. This is because it is not considered appropriate to replace a strategically significant habitat (such as Habitats of Principal Importance), with a lesser habitat, even if the lesser habitat is enhanced to be in the best condition possible. It should be noted that in accordance with the BNG Metric 3.1 loss of Urban: Open Mosaic Habitats on Previously Developed Land will need to be replaced with the same habitat. In addition, some woodland habitat cannot be created, only enhanced, as creation is identified to take *c*. 30+ years.

### **Large Brownfield Residential**

#### **On-Site Baseline Habitat Units**

- 3.204 Table 41Table 4141 identifies the baseline habitat area, habitat units and BNG parameters (condition etc.) within a large brownfield residential site of c 4.65 ha in size with the potential to deliver c. 200 dwellings. 1 ha of the site will be retained for habitat enhancements and green infrastructure.
- 3.205 The existing habitat on site (Urban: Developed land; sealed surface) does not provide any Habitat Units, and as such the baseline is 0.00 Habitat Units.

#### Table 4141. Baseline Area-Based Habitats

Habitat (UKHab)	type	Area (ha)	Distinctiveness	Condition	Strategic significance	Habitat Units	Suggested action to address habitat losses
Urban: Developed land; se surface	aled	4.65	V.Low	N/A - Other	Low Strategic Significance	0.00	Compensation Not Required
Total		4.65	-	-	-	0.00	

#### **Post-Development**

3.206 It is assumed that all areas of the site will be redeveloped. However, for the purposes of the BNG assessment c.3.65 ha will be retained as Urban; Developed land; sealed surface in the form of new development. A further 1 ha will be created as grassland (detailed in Table 42Table 4242)

#### Table 4242 On-Site Post-Creation Area-Based Habitats

Habitat type (UKHab)	Area (ha)	Distinctiveness Change	Condition Change	Strategic significance	Habitat Units Delivered
Grassland: Other neutral grassland	1.00	Medium – Medium	Moderate Good	Low Strategic Significance	3.47
Total	1.00	-	-	-	3.47

#### **Summary**

- 3.207 All baseline habitats and habitats created are present within the accompanying metric assessment for the Proposed Development (Appendix B).
- 3.208 The baseline Habitat Units for this type of brownfield site (Urban: Developed land; sealed surface) is 0.00 Habitat Units. It is assumed that all areas of the site will be redeveloped to at least Urban: Developed land; sealed surface or will include habitats of equal or better distinctiveness and / or condition. In this example we have provided a theoretical 1 ha of Grassland: Other Neutral Grassland within the site. This will result in a Biodiversity Net Gain of 100%. Any increase in greenspace within this development will result in 100% BNG and as such no offsite BNG provision would be required.

### Offices (1000 sqm): Brownfield

#### **On-Site Baseline Habitat Units**

3.209 Table 43Table 4343 identifies the baseline habitat area, habitat units and BNG parameters (condition etc.) within a site of c 0.3 ha in size allocated to deliver c. 950sqm of office space.

#### Table 4343. Baseline Area-Based Habitats

Habitat ty (UKHab)	ype	Area (ha)	Distinctiveness	Condition	Strategic significance	Habitat Units	Suggested action to address habitat losses
Urban: Vacant/derelici land/ bare grou		0.3	Low	Moderate	Low Strategic Significance	1.20	Same distinctiveness or better habitat required ≥
Total		0.3	-	-	-	1.20	-

#### **Post-Development**

3.210 0.1 ha of the site will be developed into office space. No habitats will be retained and enhanced. C. 0.2 ha of habitats will be created within the site. This includes the provision of modified grassland and a biodiverse green roof on top of the build structure. The amount of onsite habitat that is to be created to ensure a minimum of 10% BNG is detailed in Table 44Table 4444.

#### Table 4444. On-Site Post-Creation Area Based Habitats.

Habitat type (UKHab)	Area (ha)	Distinctiveness	Condition	Strategic significance	Habitat Units
Grassland: Modified grassland	0.2	Low	Fairly Good	Low Strategic Significance	0.84
Urban: Biodiverse green roof	0.1	Medium	Fairly Good	Low Strategic Significance	0.50
Total	0.3	-	-	-	1.34

#### **Summary**

3.211 All baseline habitats and habitats created are present within the accompanying metric assessment for the Proposed Development (Appendix B).

3.212 The loss of 0.3 ha of habitats will result in the loss of 1.20 Habitat Units. To replace the loss of the predominantly vacant/derelict land/ bare ground type habitat, on-site habitat creation is identified. Creation of 0.2 ha Grassland: Modified grassland in Fairly Good condition and 0.1 ha of biodiverse green roof (on top of the new building) in Fairly Good condition will result in a 11.72% net percentage change. Therefore, it can crudely be assumed that to achieve 10% BNG for a typical 'Office' site, provided the site is used wisely and habitats created are targeted thoughtfully (such as including the green roof) BNG can be provided within a site. However, if more than 0.1ha of the site is needed to provide hard buildings to include access and parking, then off-site provision is likely to be required.

### **Large Housing/ Mixed Use (Greenfield Development)**

This assessment is crudely based on LAA Ref 11EC located between Plumpton Green and South Chailey. This site is c. 135 ha in size and is identified to potentially provide c.3000 net new dwellings, and mixed-use development (employment space of 30,000 sqm of: light industrial, office space, small-scale logistics (B8), retail leisure space: 3,400 sqm retail space and 500 sqm leisure space).

# On-Site Baseline Habitat Units Table 45. Baseline Area-Based Habitats

Habitat type (UKHab)	Area (ha)	Distinctiveness	Condition	Strategic significance	Habitat Units	Suggested action to address habitat losses
Cropland - Cereal crops	104.11	Low	Condition Assessment N/A	Low Strategic Significance	208.22	Same distinctiveness or better habitat required ≥
Grassland: Other neutral	24.53	Medium	Fairly Poor	Low Strategic Significance	147	Same broad habitat or a higher distinctiveness habitat required (≥)
Lakes - Ponds (Priority Habitat)	0.06	High	Fairly Poor	Low Strategic Significance	0.54	Same habitat required =
Urban - Developed land; sealed surface	1.1	V. Low	N/A - Other	Low Strategic Significance	0	Compensation Not Required
Woodland and forest - Other woodland; broadleaved	4.57	Medium	Fairly Poor	High Strategic Significance	31.14	Same broad habitat or a higher distinctiveness habitat required (≥)
Total	134.37	-	-	-	387.08	-

#### **Post-Development**

3.213 Circa 4.57 ha of the site is ancient woodland (an irreplaceable habitat), and c. 0.06 ha is pond habitats. These are Priority Habitats (Table 46Table 46). It is assumed that these are undevelopable so will be allocated for BNG enhancement.

3.214 For the purposes of this typology, it is assumed that all other pre-development habitats will be lost, and new habitats will be created on site, assumed to be modified grassland. A minimum of c.95ha of the site will be developed as Developed land; sealed surface. The change of on-site habitat to be created is detailed in Table 47. This shows the on-site post-creation other neutral grassland habitat provision. It shows the change in habitat condition, keeping the distinctiveness as Low but increasing the condition from Poor to Good. To ensure a minimum of a 10% BNG, off-site habitat provision will also be required.

**Table 46 On-Site Post-Enhancement Area-Based Habitats** 

Habitat type (UKHab)	Area (ha)	Distinctiveness Change	Condition Change	Strategic significance	Habitat Units Delivered
Woodland and forest - Other woodland; broadleaved	4.13	Medium – Medium	Fairly Poor - Moderate	High Strategic Significance	36.45
Woodland and forest - Other woodland; broadleaved	0.44	Medium – Medium	Fairly Poor - Moderate	Low Strategic Significance	3.38
Lakes - Ponds (Priority Habitat)	0.06	High - High	Fairly Poor - Fairly Good	High Strategic Significance	0.86
Total	4.63	-	-	_	40.68

#### **Table 47 On-Site Post-Creation Area-Based Habitats**

Habitat type (UKHab)	Area (ha)	Distinctiveness	Condition	Strategic significance	Habitat Units Delivered
Urban: Developed land; sealed surface	65	V. Low	N/A - Other	Low Strategic Significance	0
Grassland: Other neutral grassland	34.27	Medium	Good	Low Strategic Significance	287.98
Urban: Intensive green roof	30	Low	Moderate	Low Strategic Significance	107.84
Total	129.27	-	-	-	395.82

#### Summary

- 3.215 All baseline habitats and habitats created are present within the accompanying metric assessment for the Proposed Development (Appendix B).
- 3.216 The loss of c.130 ha of a greenfield site (predominantly Cropping: Cereal and Grassland: Other neutral grassland) of a large housing/ mixed use (Greenfield Development) site typology habitat will result in the loss of c. 355 Habitat Units. To replace the loss of the greenfield type habitats, on-site habitat creation and enhancement is identified.
- 3.217 It can crudely be assumed that to achieve a minimum 10% BNG for a typical Large Housing/ Mixed Use Greenfield typology site, approximately

35 ha to 45 ha of Grassland: Other neutral grassland and c. 30-40 ha of urban intensive green roof on-site will need to be created. In addition, the retained woodland and ponds within the site will need to be enhanced to achieve the required credits. It should be noted that it has been assumed that the baseline condition of habitats to be enhanced is towards the lower end of the scale, i.e., the baseline condition for the existing woodlands that are to be enhance are in a Fairly Poor condition and that they can be improved to a Moderate condition. Similarly, it is assumed that the baseline condition for the pond is Fairly Poor and can be improved to a Fairly Good condition. This will enable a BNG score of 12.77%.

3.218 It should be noted that in practice Biodiversity Net Gain does not simply require the relevant number of credits to be achieved but also has a series of Trading Rules. This is because it is not considered appropriate to replace a strategically significant habitat (such as Habitats of Principal Importance), with a lesser habitat, even if the lesser habitat is enhanced to be in the best condition possible. Linear features such as ditches and hedgerows can significantly affect the BNG calculations. However, since there is no information regarding at this stage how linear features would be handled for any allocated site it was considered that attempting to include them at this stage would further add to the assumptions needed without a site masterplan without adding much benefit to the broad analysis undertaken. This will therefore need reviewing (as will all the BNG calculations) when planning applications with site masterplans are available.

#### Conclusion

3.219 Table 48 Summary of Typologies provides a brief summary of the typologies, type of development, the quantum, the number of BNG credits required, and the broad habitat requirements that would be required to deliver an at least 10% BNG.

**Table 4848: Summary of Typologies** 

Typology	Quantum and Development	Type	of	Area of Typology (ha)	BNG Credits Lost On Site	Area of habitat required to ensure 10% BNG. (ha)
Small Greenfield Residential	30 dwellings			1.2 ha	9.60	c. 4 ha off-site habitat- enhancement: Grassland: Other Neutral Grassland
Medium Greenfield Residential	100 dwellings			5.79 ha	46.32	c. 1-2 ha on-site enhancement: Grassland: Other neutral grassland  AND c. 11-14 ha off-site habitat enhancement: Grassland: Other neutral grassland
Large Greenfield Residential	160 dwellings			11.97 ha	71.82	c. 5-7 ha <u>on-site</u> enhancement:

Typology	Quantum and Type of Development	Area of Typology (ha)	BNG Credits Lost On Site	Area of habitat required to ensure 10% BNG. (ha)
				Grassland: Other neutral grassland AND
				c. 7-10 ha off-site habitat enhancement: Grassland: Other neutral grassland
Small Brownfield Residential	60 dwellings	2.0 ha	24	c. 8 - 12 ha off-site enhancement: Grassland: Other neutral grassland
Large Brownfield Residential	200 dwellings	4.65 ha	0.00	N/A
Offices	950 sqm of office space	0.3 ha	1.20	c. 0.2 ha on-site creation: Grassland: Other neutral grassland AND c. 0.1 ha on-site habitat creation:
				Urban: Biodiverse green roof
	C 3000 dwellings Mixed use development (employment space of 30,000 sqm of: light industrial, office space, small-scale logistics (B8), retail leisure space: 3,400 sqm retail space and 500 sqm leisure space	135 ha	355.4	c. 35-45 ha on-site creation: Grassland: Other neutral grassland AND c. 30-40 ha on-site habitat creation: Urban: Intensive green roof.

#### **Strategic Off-site Biodiversity Net Gain Requirement**

- 3.220 Based on the preceding typologies it is possible to calculate an approximate number of total off-site BNG credits for which Lewes District Council should plan, and the area of land involved. This will enable Lewes District Council to identify whether there is sufficient land in their control with sufficient potential to meet any off-site BNG requirement for the District. This calculation can be undertaken by multiplying up the land area required for each typology by an approximate number of sites to be allocated.
- 3.221 For example, if the Council were to deliver ten small (c. 30-60 dwellings) residential sites (five on greenfield and five on brownfield), 5 medium residential sites (greenfield) four large residential sites (two on greenfield and two on brownfield), ten office sites and two large mixed-use sites, based on the above typologies c. 1,245 BNG Habitat Units would be lost, (in addition to the on-site enhancement and creation detailed in Table 48Table 4848).
- 3.222 To achieve 10% BNG provision at least c. 365 ha of habitats would be required to be enhanced and/or created both on and off-site in this hypothetical scenario.

The typologies identified in Table 48Table 4848 identifies that c. an additional 170-180 ha of additional land would be required off-site to enable a minimum of 10% BNG to be achieved. This gives an indication of the broad scale (rather than the precise amount) of on and off off-site land that may need to be found over the course of the plan period to ensure a 10% BNG requirement is met for all new development in the District.

- 3.223 It should be noted that there are many facets that go into the BNG Metric calculations, and changes to any one of these will alter the results, and thus the BNG requirements. On-site examples of these include the exact area of habitats on site, their specific distinctiveness and condition, strategic significance, and whether the area is to be lost entirely or retained and enhanced. Off-site examples include the exact area of existing habitat on site and specific distinctiveness and condition, strategic significance, if the existing habitat is to be lost or enhanced, the target habitat's distinctiveness and condition, when the habitat enhancements/ creation is to take place (i.e. in advance or delayed) and the location of the off-site BNG provision (i.e. is the compensation land inside the LPA or NCA, or deemed to be sufficiently local, to site of biodiversity loss or not).
- 3.224 Further to this, Metric 3.1 has 'Trading Rules' that need to be adhered to. Certain habitats will need to be replaced with like for like habitat or equivalent habitats that have been improved in condition. It is noted that one of the typologies (Small Greenfield Residential) detailed above includes the loss of the NERC S41 habitat Grassland: Floodplain Wetland Mosaic (CFGM). For the purposes of comparison, we have assumed that the BNG replacement habitat for this will be neutral grassland. However, to satisfy the Metric 3.1 Trading Rules, to achieve a 10% BNG the same habitat is required (i.e. there needs to be a 10% net gain in Grassland: Floodplain Wetland Mosaic). Less distinctive habitats do not require like for like replacements but may require a replacement with a similar habitat type or a habitat of a similar or better distinctiveness. Habitat quality will always require betterment. As such, when looking for off-site BNG provision for loss of Grassland: Floodplain Wetland Mosaic, this can only be replaced with this habitat type. This will either require enhancement of existing floodplain habitat or the creation of new floodplain habitat. By its nature this habitat type is hydrologically limited and as such would limit potential locations for off-site BNG provision.
- 3.225 Therefore, it is clear that the precise amount of land required for off-site BNG cannot be determined until:
  - a full suite of ecological surveys are undertaken to help inform any habitat changes and management. This includes (but is not limited to) Phase 1 Habitat/ UK habitat surveys and protected species surveys.
  - a detailed investigation of the potential off-site locations discussed below has been undertaken in order to determine exactly how many credits each may be able to achieve; and
  - c. each proposed allocation has been subject to master-planning such that detailed BNG calculations can be undertaken.
- 3.226 Linear features such as ditches and hedgerows can significantly affect the BNG calculations. However, since there is currently no information available as to how linear features would be handled for any allocated site. It was considered that attempting to include them at this stage would further add to the assumptions

needed without a site masterplan. This would not add much benefit to the broad analysis undertaken. This will therefore need reviewing (as will all the BNG calculations) when planning applications with site masterplans are available.

### **BNG Input to a Viability Assessment**

3.227 Having determined a potential BNG requirement, including an off-site requirement, for a series of development typologies, this section examines each typology to provide an indication of costs to achieve the calculated level of BNG, to feed into the Local Plan viability assessment. All of these figures are calculated for 10% BNG. To uplift the figures to 20% BNG the values in bold would be up to double although there may be some economy savings for a particular site.

### **Small Greenfield Residential (30 dwellings)**

- 3.228 BNG involves improving the condition of 3.80ha of 'Other Neutral Grassland' from 'Fairly Poor' to 'Good'. According to the Biodiversity Market Analysis study undertaken by WSP, Balfour Beatty and Eftec, for Defra in 2020, improving semi-improved grassland from one condition category to the next by grazing, cost £27,604/ha over 30 years, including both enhancement and management. Add a further 10% for monitoring costs.
- 3.229 Neutral grassland =  $3.80 \times £27,604 = £104,895 + monitoring$  at 10% = £115,385 ballpark cost to achieve BNG.

### **Medium Greenfield Residential (100 dwellings)**

- 3.230 On-site BNG involves improving condition of 1.79ha of 'other neutral grassland' from 'moderate' to 'good'. Off-site BNG involves improving condition of 11.5ha of 'other neutral grassland' from 'moderate' to 'good'.
- 3.231 According to the Biodiversity Market Analysis study undertaken by WSP, Balfour Beatty and Eftec, for Defra in 2020, improving semi-improved grassland from one condition category to the next by grazing cost £27,604/ha over 30 years, including both enhancement and management. Add a further 10% for monitoring costs.
- 3.232 Neutral grassland =  $13.29 \times £27,604 = £366,857 + monitoring at <math>10\% = £403,543$  ballpark cost to achieve BNG.

### **Large Greenfield Residential (160 dwellings)**

- 3.233 On-site BNG involves improving condition of 6.57ha of 'other neutral grassland' from 'fairly poor' to 'fairly good'. Off-site BNG involves improving condition of 8ha of 'other neutral grassland' from 'moderate' to 'good'.
- 3.234 According to the Biodiversity Market Analysis study undertaken by WSP, Balfour Beatty and Eftec, for Defra in 2020, improving semi-improved grassland from one condition category to the next by grazing cost £27,604/ha over 30 years, including both enhancement and management. Add a further 10% for monitoring costs.
- 3.235 Neutral grassland =  $14.57 \times £27,604 = £402,190 + monitoring at 10\% = £442,409 ballpark cost to achieve BNG.$

### Small Brownfield Residential (c. 60 dwellings)

- 3.236 BNG involves improving condition of 9.5ha of 'other neutral grassland' from 'fairly poor' to 'good'.
- 3.237 According to the Biodiversity Market Analysis study undertaken by WSP, Balfour Beatty and Eftec, for Defra in 2020, improving semi-improved grassland from one condition category to the next by grazing cost £27,604/ha over 30 years, including both enhancement and management. Add a further 10% for monitoring costs.
- 3.238 Neutral grassland =  $9.5 \times £27,604 = £262,238 + monitoring$  at 10% = £288,462 ballpark cost to achieve BNG.

### **Large Brownfield Residential (200 dwellings)**

- 3.239 On-site BNG involves creating 1ha of moderate quality neutral grassland.
- 3.240 According to the Biodiversity Market Analysis study undertaken by WSP, Balfour Beatty and Eftec, for Defra in 2020, improving semi-improved grassland from one condition category to the next by grazing cost £27,604/ha over 30 years, including both enhancement and management. Assume a further £4,000/ha for initial ground preparation and seeding based on AECOM experience. Add a further 10% for monitoring costs.
- 3.241 Neutral grassland = 1 x £27,604 + £4,000 = £31,604 + monitoring at 10% = £34,764 ballpark cost to achieve BNG.

### Offices (1000 sqm)

- 3.242 On-site BNG involves creating 0.2 ha of fairly good condition modified grassland and a 0.1 ha biodiverse green roof.
- 3.243 According to the Biodiversity Market Analysis study undertaken by WSP, Balfour Beatty and Eftec, for Defra in 2020, improving semi-improved grassland from one condition category to the next by grazing cost £27,604/ha over 30 years, including both enhancement and management. Assume a further £4,000/ha for initial ground preparation and seeding based on AECOM experience. Add a further 10% for monitoring costs. The same source provides no information on the cost of green roofs but based on information presented in the Kent Viability Assessment for Biodiversity Net Gain84 the following costs seem a reasonable ballpark: £70/m² to create and monitoring/management at £1/m²/year (i.e. £30/m² for 30 years). Therefore, assuming £100 m² for a biodiverse green roof seems reasonable.
- 3.244 Modified grassland = 0.2 x £27,604 + £4,000 = £6,321 + monitoring at 10% = £6.953
- 3.245 Green roof =  $1000 \text{ m}^2 \text{ x } £100/\text{m}^2 = £100,000$
- 3.246 Total = £6,953 + £100,000 = £106,953 ballpark cost to achieve BNG.
- 1.1 Viability-Assessment-of-Biodiversity-Net-Gain-in-Kent-June-2022.pdf (kentnature.org.uk) [accessed 22/11/23]

### **Large Housing/ Mixed Use (Greenfield Development)**

- 3.247 Large mixed use (3,000 dwellings, 30,000 sqm of: light industrial, office space, small-scale logistics (B8), retail leisure space: 3,400 sqm retail space and 500 sqm leisure space).
- 3.248 On-site BNG involves improving condition of c. 4.5ha of woodland from 'fairly poor' to 'moderate' condition and 0.06ha of pond from 'fairly poor' to 'fairly good' condition, plus creating 34ha of good quality neutral grassland and 30ha of moderate quality green roof.
- 3.249 According to the Biodiversity Market Analysis study undertaken by WSP, Balfour Beatty and Eftec, for Defra in 2020, improving woodland from poor to good cost £106,167/ha, including both enhancement and management. This appears to be more expensive than creating a woodland from scratch based on the data provided, so this has been used to be precautionary. Add a further 10% for monitoring costs. The cost of enhancing a pond is cited in the same document as £285,973/ha. The same document indicates that improving semi-improved grassland from one condition category to the next by grazing cost £27,604/ha over 30 years, including both enhancement and management. Assume a further £4,000/ha for initial ground preparation and seeding based on AECOM experience. Add a further 10% for monitoring costs.
- 3.250 The same source provides no information on the cost of green roofs but based on information presented in the Kent Viability Assessment for Biodiversity Net Gain (Viability-Assessment-of-Biodiversity-Net-Gain-in-Kent-June-2022.pdf (kentnature.org.uk)) the following costs seem a reasonable ballpark: £70/m² to create and monitoring/management at £1/m²/year (i.e. £30/m² for 30 years). Therefore, assuming £100 m² for a biodiverse green roof seems reasonable.
- 3.251 Woodland =  $4.5 \times £106,167 = £477,752 + monitoring at 10\% = £525,527$
- 3.252 Pond =  $0.06 \times £285,973 = £17,158 + monitoring at <math>10\% = £18,916$
- 3.253 Neutral grassland =  $34 \times (£27,604 + £4,000) = £1,074,536 + monitoring at 10% = £1,181,989$
- 3.254 Green roof =  $30,000 \text{ m}^2 \text{ x} £100/\text{m}^2 = £3,000,000$
- 3.255 Total = £525,527 + £18,916 + £1,181,989 + £3,000,000 = **£4,726,432** ballpark cost to achieve BNG.

## **Justification for requiring 20% BNG**

- 3.256 As part of this study, AECOM was asked to advise on whether 10% Biodiversity Net Gain is sufficient to ensure true net gain in Lewes District, or whether a greater degree of net gain is actually necessary.
- 3.257 Firstly, it is important to note that Defra's 2018 impact assessment for the introduction of the national Biodiversity Net Gain policy<sup>85</sup> identified that: "...In simple terms, [10%] is the lowest level of net gain that [Defra] could confidently expect to deliver genuine net gain, or at least no net loss, of biodiversity and thereby meet its policy objectives", that "...Advice from some Natural Capital Committee members suggests that a level of net gain at or above 10% is

<sup>85 181121</sup> Biodiversity Net Gain Consultation IA FINAL for publication.pdf (defra.gov.uk)

necessary to give reasonable confidence in halting biodiversity losses" and that "...The department therefore favours as high a level of net gain as is feasible... The analysis undertaken in this Impact Assessment indicates that the level of requirement makes relatively little difference to the costs of mitigating and compensating for impacts." Therefore, it is clear that to be confident of achieving a genuine net gain for biodiversity across Lewes District a level of gain above 10% should be sought.

3.258 Secondly, the Council is considering a number of large strategic developments. It is increasingly common, and reasonable as part of positive landscape-scale planning for large developments to be expected to achieve greater than 10% BNG. For example, Otterpool Park Garden Town in Folkestone & Hythe District, is being required to achieve 20% BNG.

3.259 Thirdly, the UK State of Nature report<sup>86</sup> identifies that:

- There has been a significant decline in invertebrates in England, particularly species providing key ecosystem services such as pollination and pest control. Pollinating insects (bees, hoverflies and moths) play a critical role in food production and show an average decrease in distribution of 22% since 1970. Insect groups (ants, carabid, rove and ladybird beetles, hoverflies, dragonflies and wasps) that predate species which damage food crops showed a precipitous average decline in distribution of 40% since 1970. Lewes is a predominantly rural district and agriculture is an important local business as well as being crucial to food production and self-sufficiency. In such rural agricultural districts, it is important to maximise BNG opportunities to provide reservoirs of insects for both pollination and crop-pest predation.
- Healthy ecosystems 'provide cost-effective climate change mitigation through carbon capture and storage... and help with adaptation to climate change impacts'. Lewes District Council declared a Climate Emergency in 2019 and published a Climate Change and Sustainability Strategy and Action Plan in 202187. This made it clear that the Council believes tackling climate change is our most important issue as it threatens vulnerable communities the most with impacts on the costs of living such as higher fuel and food costs, housing not suited to changing climates and health impacts from extreme heat and poor air quality. A key aspect of the Council's strategy is to manage water runoff, through natural flood management for example. Areas of BNG are ideal for providing natural flood management and improving carbon capture and storage. Given that 10% BNG is the minimum likely requirement to achieve actual net gain, it makes sense that areas that have declared Climate Emergencies should endeavour to achieve considerably more than the bare minimum BNG to ensure actual net gain is achieved to aid climate resilience. Lewes District Council have also developed a Biodiversity Strategy<sup>88</sup> and have committed, in a motion to the full council, to address the ecological crisis<sup>89</sup>.
- For rivers, lakes, estuaries and coastal waters, Good Status (within the Water Framework Directive, comprising Good Ecological and Good Chemical Status) considers a wide range of parameters that must all be brought to at least 'Good'

<sup>86</sup> State of Nature Report

<sup>&</sup>lt;sup>87</sup> https://www.lewes-eastbourne.gov.uk/media/2511/LDC-Climate-Change-and-Sustainability-Strategy-and-Action-Plan-2021/pdf/LDC\_Climate\_Change\_and\_Sustainability\_Strategy\_and\_Action\_Plan\_2021.pdf?m=638210379627730000

<sup>88</sup> Lewes Biodiversity Strategy - Appendix 1 (lewes-eastbourne.gov.uk) [accessed 22/11/23]

<sup>89</sup> https://democracy.lewes-eastbourne.gov.uk/ieListDocuments.aspx?Cld=431&Mld=3244&Ver=4 [accessed 22/11/23]

for the waterbody to be considered to be in good overall health, and capable of delivering benefits for nature and for society. For a coastal local authority, it is imperative that opportunities are maximised to achieve good ecological status for its adjacent coastal waters and maximising areas of BNG can play a key role in achieving that position by providing natural flood management.

- Fourthly, a recently published (November 2023) Lewes District Biodiversity Monitoring Report undertaken by Sussex Biodiversity Record Centre has identified that in Lewes District has a higher percentage of Sites of Special Scientific Interest management units in unfavourable declining condition than the average in Sussex or the South-East (23.6% in Lewes District compared to 16.1% in East Sussex and 7.9% in the South East). This illustrates the need to focus on biodiversity recovery as part of future planning. Achieving a higher level of BNG could contribute to SSSI recovery by making the area around the SSSIs and the general landscape more resilient.
- 3.260 Fifthly and finally, there is already precedent for greater than 10% BNG being achieved on submitted applications within the district, indicating that achieving 20% BNG is entirely reasonable and possible. Examples are:
  - Application LW/23/0304<sup>90</sup> a brownfield site, which claims to achieve 801% BNG;
  - Application LW/22/0459<sup>91</sup> a greenfield residential site, which claims to achieve 53.31% BNG habitat units and 25.85% hedgerow units;
  - Application LW/22/0472<sup>92</sup> A greenfield residential site which claims to achieve 49.31% BNG in habitat units;
  - Application LW/22/0254<sup>93</sup> A solar farm application which claims to achieve 230% BNG in habitat units.
- 3.261 Although the BNG calculations in this report are based on the legal minimum requirement of 10%, it would potentially be possible to achieve 20% BNG or greater on any of the typologies chosen, depending on the details of the actual development and the nature of the land chosen for any off-site BNG.
- 3.262 For example, if for the small brownfield residential typology the quality of the off-site grassland was improved to 'good' rather than 'fairly good' as has been assumed in the 10% BNG calculations, it would raise the BNG achieved from 10.88% to 54.88%, without needing any additional land beyond that required to achieve 10% BNG. While there would need to be a more diverse seed mix, ground preparation and greater management to improve the status to 'good' rather than 'fairly good', it would be achievable and would not cost 5 times the cost of a 10% BNG despite achieving 5 times the BNG.
- 3.263 If the same is done with the large brownfield residential typology, the credits to be achieved increases from 11.71% to 24.10% BNG. Similarly, if the large

<sup>90</sup> Civica Town - Planning Documents (lewes-eastbourne.gov.uk)

<sup>91</sup> Civica Town - Planning Documents (lewes-eastbourne.gov.uk)

<sup>&</sup>lt;sup>92</sup> LW/22/0472 | Outline application with all matters reserved except for access for the demolition of an existing residential property and erection of up to 75 residential dwellings including affordable housing with the provision of vehicular access onto Harrisons Lane and pedestrian and cycle access onto Potato Lane alongside public open spaces, biodiversity enhancement, sustainable urban drainage systems, landscaping, infrastructure and earthworks | Land East Of Harrisons Lane Ringmer East Sussex (lewes-eastbourne.gov.uk)
<sup>93</sup> LW/22/0254 | Construction of a renewable led energy generating station comprising ground-mounted photovoltaic solar

arrays together with substation, inverter/transformer stations, grid connection infrastructure, grid cable route, site accesses, access gates, internal access tracks, security measures, other ancillary infrastructure and landscaping and biodiversity enhancements | Land East Of Uckfield Road (A26) Ringmer East Sussex (lewes-eastbourne.gov.uk)

- greenfield site starts with arable land (rather than grassland) but leaves all other factors the same, 150.45% BNG can be achieved.
- 3.264 In other instances, particularly if creating more important habitats such as calcareous grassland, woodland or reedbeds, much more land would be needed.
- 3.265 It is therefore considered there is strong justification for Lewes District Council to seek a minimum of 20% BNG where feasible, and it should be practically achievable.

### **Areas of Potential BNG Land Provision within Lewes**

- 3.266 As detailed in the BNG Typologies section, to achieve at least a 10% biodiversity net gain based on the hypothetical example quantum of delivery (i.e., ten small (c. 30-60 dwellings) residential sites (five on greenfield and five on brownfield), 5 medium residential sites (greenfield) four large residential sites (two on greenfield and two on brownfield), ten office sites and two large mixed-use sites) at least c. 365 ha of habitats would be required to be enhanced and/or created both on and off-site.
- 3.267 The typologies identified in Table 42 identify that an additional c170-180 ha of additional land may potentially be required off-site to enable a minimum of 10% BNG to be achieved for all growth (this is currently a nominal figure since no actual allocations have been made but gives an indication of scale). This gives an indication of the broad scale (rather than the precise amount) of on and off off-site land area that may need to be found over the course of the plan period to ensure the minimum 10% BNG requirement is met for all new development in the District. Utilising larger LAA sites for BNG capacity where they have been assessed as unsuitable for housing or employment development, and ensuring any larger development sites provide sufficient BNG to be BNG self-sufficient and even have excess to provide strategic BNG for developments that require off site BNG provision will help to reduce will help towards meeting the BNG need of the District. As a general principle, there is no certainty at this stage that offsite BNG capacity can be provided for any allocated site. As such, BNG should be achieved 'on site' as far as possible, rather than assuming 'off-site' strategic provision can be made.
- 3.268 It is also important to note that further oppourtunities may become available through the East Sussex County Council LNRS.
- 3.269 This section of the report identifies potential locations that could be considered for strategic BNG provision. Land Availability Assessment (LAA) sites which were put forward for potential development but were considered 'undevelopable' for housing or employment development in either the 2018 LAA or the 2022 LAA. If or any sites that do not become allocations for housing or employment development could be considered for BNG provision. Other opportunities for BNG provision are also discussed. Land that has the lowest existing ecological value will generally provide the greatest scope for delivering BNG.
- 3.270 It should be noted that prior to any of the below land parcels being taken forward, it is recommended that a full suite of ecological surveys are undertaken to help inform any proposed habitat changes and management. This includes (but is not limited to) Phase 1/ Habitats UK habitat surveys and protected species surveys.

#### Smaller LAA sites

#### Southern Water Pumping Station Site, Fort Road, Newhaven

- 3.271 The 0.2 ha mainly disused pumping station site is located on previously developed land opposite and adjacent to newly developed housing at Mariners Warf. Located adjacent to Castle Hill Local nature reserve and Priority Habitat deciduous woodland.
- 3.272 The site is owned by Southern Water and due to its brownfield nature could provide a significant potential to accrue BNG points. From review of online imagery, the site comprises managed amenity grassland with the pump building and other support structures surrounding it.
- 3.273 The site is at the main pedestrian/vehicular entrance to Castle Hill LNR and Newhaven Fort, a prominent historic feature. It has been identified by LDC conservation that development of this site for residential purposes would have an insurmountable impact upon the historic setting of Newhaven Fort.
- 3.274 As the site is located adjacent to an existing LNR, it is possible that the habitats within the site could be replaced or enhanced to extend the benefit of the adjacent LNR boundary. It is recommended that at the next stage of plan development a detailed study of the BNG potential of this site is undertaken.

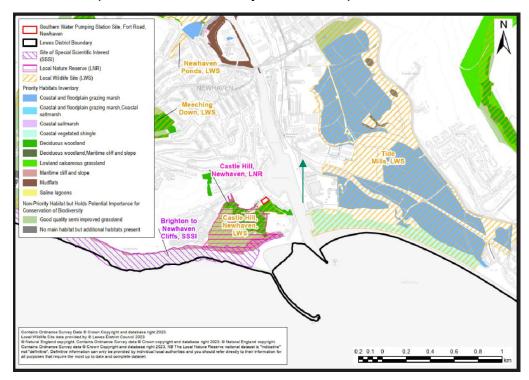
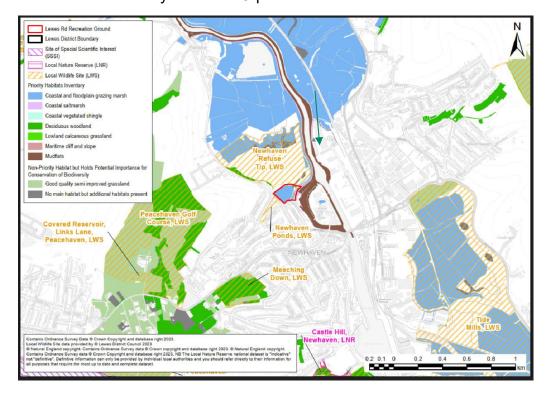


Plate 2 Southern Water, Fort Road Pumping Station

#### **Lewes Road Recreation Ground**

3.275 An area of 2.06 ha that is identified currently as a recreation ground and leisure facility. Allocated in Policy R1 of the Newhaven Neighbourhood Plan for Recreation and Leisure purposes. Policy R2 supports proposals for new community/visitor centre. Outside but adjacent the existing planning boundary for Newhaven. The recreation ground and community hut are to be retained however there are ample opportunities to provide BNG within the site without

- losing the function of the existing facilities. This includes but is not limited to wildflower banks surrounding the green, appropriate management of unmanaged grassland areas, planting of new woodland areas.
- 3.276 Without knowing the condition of the existing habitats within this land parcel, it is not possible to determine how much BNG capacity the land parcel could provide. It is therefore recommended that at the next stage of plan development a detailed study of the BNG potential of this site is undertaken.



**Plate 3 Lewes Road Recreation Ground** 

#### Land adjacent to Tudor Rose Mobile Park Home, South Coast Road

- 3.277 An area of 0.43 ha that from an aerial imagery review is likely to be improved grassland. Peacehaven Golf Course Local Wildlife Site is located adjacent to the northeast of the site, as is the SDNP (SDNP). The LSW is designated for its diversity of habitats including woodland, scrub, grassland and wetland.
- 3.278 Due to its close proximity to the LWS, this site could present potential for habitat creation and enhancement depending on what habitat types are chosen to be targeted. Without knowing the condition of the existing habitats within this land parcel, it is not possible to determine how much BNG capacity the land parcel could provide.
- 3.279 It is therefore recommended that at the next stage of plan development a detailed study of the BNG potential of this site is undertaken.

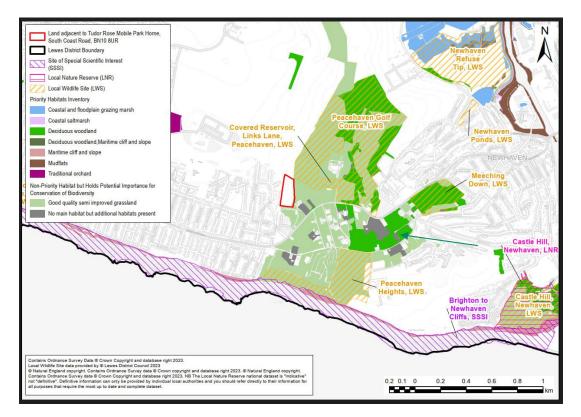


Plate 4 Tudor Rose Mobile Park Home, South Coast Road

3.280 It is noted that the sites detailed above are all small (mostly less than c.2ha in size), so will not contribute significant strategic BNG to Lewes.

### **Larger LAA Sites**

3.281 Larger LAA sites that have been assessed as unsuitable for residential or employment development are identified in the following section. If not providing built development, an alternative, these could potentially be enhanced or have habitats created to provide strategic BNG provision. Note that for all these sites, it is not possible to determine how much BNG capacity the land parcel could provide without knowing the condition of the existing habitats within this land parcel.

#### Land North and East of Broyle Side

- 3.282 An area of c. 29 ha that from aerial imagery review appears to be cereal cropland. From a desk top review, the site does not appear to be in proximity to any designated sites of notable habitats such as Priority Habitats or ancient woodland (an irreplaceable habitat). None- the less, the sites isolation from these wildlife features does not detract from its ability to provide BNG provision. It is noted that on the Lawton Recovery Map<sup>94</sup> the site lies in close proximity to a BugLife B-line.
- 3.283 The cereal cropland nature of the existing habitats on site lends itself to habitat creation, such as a matrix habitat of grassland, scrub and trees, with potentially the inclusion of a pond or two. Habitats could be tailored to the landscape character of the area.
- 3.284 To bring this site forward as potential BNG provision, it is recommended that the landowner/ agent is approached to determine if this is something that they

<sup>94</sup> Available at 7.-NRN-Mapping-Project\_Main-Report\_220421.pdf (sussexInp.org.uk) [accessed 16/03/2023]

Land north and east of Broyle Side
Leves District Boundary
Site of Special Scientific Interest
(SSSI)
Local Wildlife Site (LWS)
Ancient Woodland
Priority Habitats Inventory
Deciduous woodland
Lowland meadows
Traditional orchard
Non-Priority Habitats but Holds Potential Importance for Conservation of Biodiversity
Good quality semi improved grassland
No main habitat but additional habitats present

would consider. In addition, a detailed study of the BNG potential of this site is recommended.

Plate 5 Land North and East of Broyle Side BNG provision

#### Ham Farm, Ham Lane, Ringmer

- 3.285 An area of c. 20 ha that from aerial imagery review appears to be improved grassland that is cut for hay and also grazed by livestock. The site also includes a farmhouse and associated gardens and farm buildings. From a desk top review, the site does not appear to be in proximity to any designated sites of notable habitats such as Priority Habitats or ancient woodland (an irreplaceable habitat), however the site is adjacent to the SDNP boundary. None- the less, the sites isolation from wildlife features does not detract from its ability to provide BNG provision. It is noted that on the Lawton Recovery Map<sup>95</sup> the site lies within a BugLife B-line.
- 3.286 The existing grassland on the site lends itself to habitat enhancement, improving the grassland quality on site, and potentially introducing some scrub, a few trees with potentially the inclusion of a pond or two. Habitats could be tailored to the landscape character of the area.
- 3.287 To bring this site forward as potential BNG provision, it is recommended that the landowner/ agent is approached to determine if this is something that they would consider. In addition, a detailed study of the BNG potential of this site is recommended.

<sup>95</sup> Available at 7.-NRN-Mapping-Project Main-Report 220421.pdf (sussexInp.org.uk) [accessed 16/03/2023]

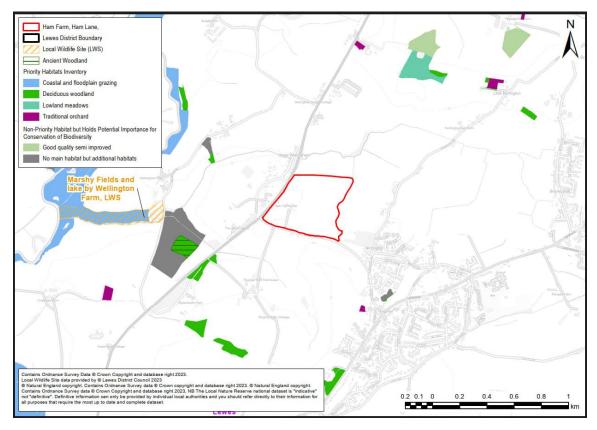
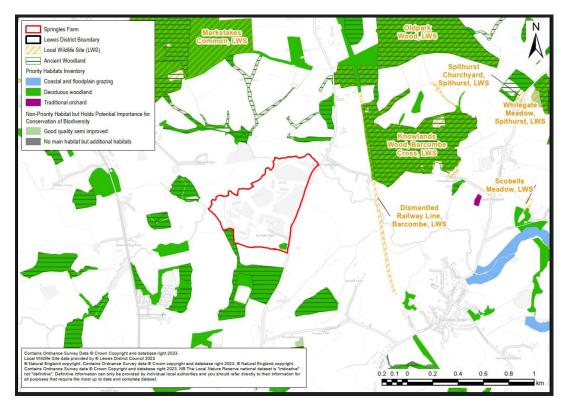


Plate 6 Ham Farm, Ham Lane, Ringmer

#### **Springles Farm**

- 3.288 An area of c. 36 ha that from aerial imagery review appears to be chicken farm. The site contains pockets of planted woodland, and grassland interspersed with occasional mature trees. The western and northern boundaries of site are located within flood zone 3. Ancient woodland (Priority Habitat and an irreplaceable habitat) is located adjacent to the site the south-western corner of the site. Bevern stream runs the length of the northwestern boundary of the site. Whilst the scale of the Lawton Recovery Map<sup>96</sup> make it difficult to confirm, it appears as though at least part of the site is located within an area of High Wetland Habitat Potential.
- 3.289 The existing grassland and woodland habitats on the site lend itself to habitat enhancement, improving the grassland quality on site, and potentially introducing some scrub, a few trees with potentially the inclusion of a pond or two, and potentially encouraging more wetland features to develop. Habitats could be tailored to the landscape character of the area.
- 3.290 To bring this site forward as potential BNG provision, it is recommended that the landowner/ agent is approached to determine if this is something that they would consider. In addition, a detailed study of the BNG potential of this site is recommended.

<sup>&</sup>lt;sup>96</sup> Available at 7.-NRN-Mapping-Project\_Main-Report\_220421.pdf (sussexInp.org.uk) [accessed 16/03/2023]



**Plate 7 Springles Farm** 

#### Starvecrow Farm. South Common

- 3.291 An area of c. 12 ha that from aerial imagery review appears to consist of a band of ancient woodland (an irreplaceable habitat) that runs through the site connecting ancient woodland to the east and west, as well as grassland meadows. Ancient woodland (Priority & Irreplaceable Habitat) is located within the site which connects to ancient woodland to the southeast of the site and north and west of the site. Adjacent to the North of the site is Markstakes Common Local Wildlife Site (LWS) designated for a habitat matrix of woodland, scrub, bracken, ponds and disused clay pits creating a diverse open access area with high diversity of flora including rarer species and adjacent to the north and northwest of the site is Kiln Wood and Starvecrow Wood LWS which is designated for its ancient woodland site forming a mosaic of oak, hornbeam, coppice with areas of pine and sweet chestnut. The Lawton Recovery Map<sup>97</sup> identifies that these two LWSs are failing SDL160 (positive conservation management has been or is being implemented).
- 3.292 The existing grassland and woodland habitats on the site lend itself to habitat enhancement, improving the grassland quality on site, and enhancing connectivity through the site to the woodlands beyond the site boundary. Aerial imagery appears to show that boundary hedgerows are patchy. These could be infill planted and enhanced. In addition, some scrub could be introduced along with a few trees with potentially the inclusion of a pond or two, and potentially encouraging more wetland features to develop. Habitats could be tailored to the landscape character of the area.

<sup>97</sup> Available at 7.-NRN-Mapping-Project Main-Report 220421.pdf (sussexInp.org.uk) [accessed 16/03/2023]

3.293 To bring this site forward as potential BNG provision, it is recommended that the landowner/ agent is approached to determine if this is something that they would consider. In addition, a detailed study of the BNG potential of this site is recommended.

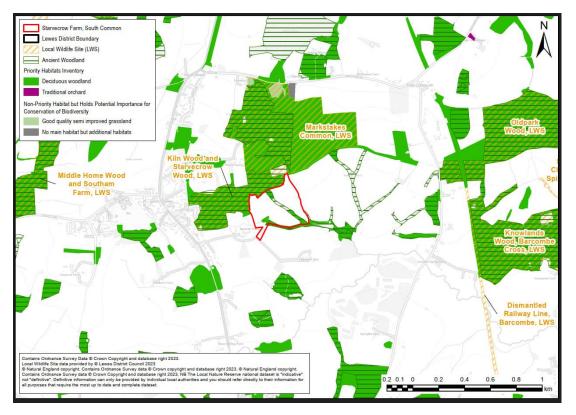


Plate 8 Starvecrow Farm, South Common

#### **Land to West of Newick Park**

- 3.294 An area of c. 20 ha that from aerial imagery review appears to consist of arable land and improved grassland. The site is bounded to the east and south by Deciduous Woodland Priority Habitat, with the southern extent identified as Ancient woodland (an irreplaceable habitat).
- 3.295 The existing arable land would lend itself to habitat creation, whilst the existing improved grassland could be enhanced. Broad habitat types that could be targeted would be a matrix habitat including grassland, scrub, enhanced tree planting to compliment the surrounding woodlands and potentially a pond. Habitats could be tailored to the landscape character of the area.
- 3.296 To bring this site forward as potential BNG provision, it is recommended that the landowner/ agent is approached to determine if this is something that they would consider. In addition, a detailed study of the BNG potential of this site is recommended.

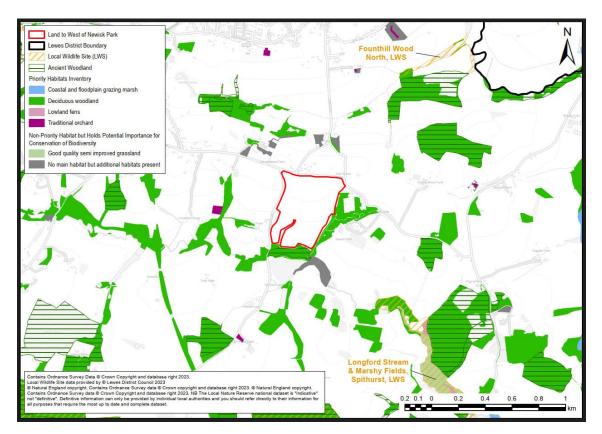


Plate 9 Land to West of Newick Park

# Land Parcel: Goldbridge Farm, Land north of Goldridge Road, and Land at Cricketfield, Newick

- 3.297 An area of c. 16 ha that from aerial imagery review appears to consist of arable land and woodland, including Priority Habitat deciduous woodland. To the east of the site is a parcel of ancient woodland (an irreplaceable habitat). Whilst not immediately adjacent, other parcels of woodland, including ancient woodland, are located within the vicinity of the site (to the north). The Lawton Recovery Map<sup>98</sup> identifies that this land parcel is located within a BOA.
- 3.298 The existing arable land would lend itself to habitat creation, whilst the existing woodland could be enhanced. Other broad habitat types that could be targeted for creation include a matrix habitat including grassland, scrub, enhanced tree planting to compliment the surrounding woodlands and potentially a pond. Habitats could be tailored to the landscape character of the area.
- 3.299 To bring this site forward as potential BNG provision, it is recommended that the landowner/ agent is approached to determine if this is something that they would consider. In addition, a detailed study of the BNG potential of this site is recommended.

<sup>98</sup> Available at 7.-NRN-Mapping-Project\_Main-Report\_220421.pdf (sussexInp.org.uk) [accessed 16/03/2023]

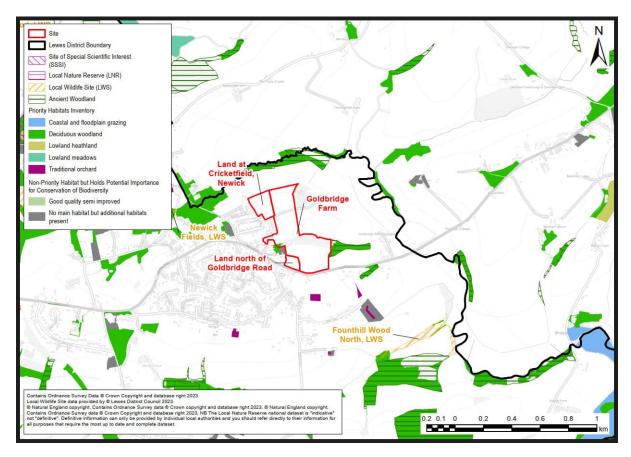


Plate 10: Land Parcel: Goldbridge Farm, Land north of Goldridge Road, and Land at Cricketfield, Newick

Land Parcel: Land South of Allington Road, Adjoins SW corner of Primary school playing field with Oxbottom Lane; Land at Mitchelswood Farm; Land to the rear of 85-89 Allington Road, Newick; Land rear of 89-95 Allington Road; Land south of Allington Road; and Land off Allington road, Newick

- 3.300 An area of c. 24 ha that from aerial imagery review appears to consist of improved grassland, scrub, woodland (Priority Habitat deciduous woodland and a small area of ancient woodland (an irreplaceable habitat) to the south), pond and well-established hedgerows, as well as agricultural buildings. Adjacent to the south and west of the site lies woodland, including Priority Habitat deciduous woodland and ancient woodland).
- 3.301 The existing improved grassland nature of the site lends itself to habitat enhancement of habitats already present within the site. Habitats could be tailored to the landscape character of the area.
- 3.302 To bring this site forward as potential BNG provision, it is recommended that the landowner/ agent is approached to determine if this is something that they would consider. In addition, a detailed study of the BNG potential of this site is recommended.

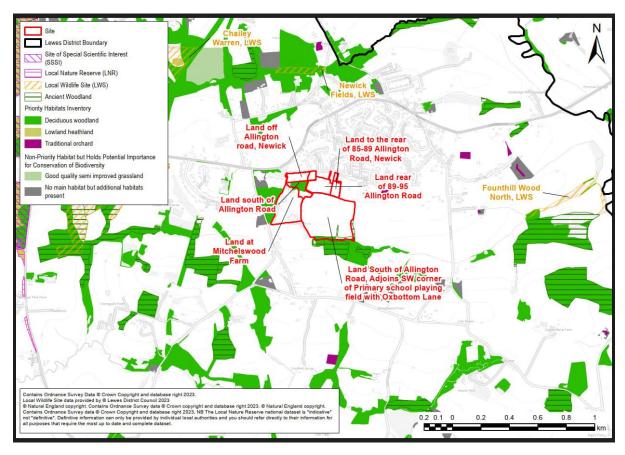


Plate 11: Land Parcel: Land South of Allington Road, Adjoins SW corner of Primary school playing field with Oxbottom Lane; Land at Mitchelswood Farm; Land to the rear of 85-89 Allington Road, Newick; Land rear of 89-95 Allington Road; Land south of Allington Road; and Land off Allington road, Newick

#### The Plantation, Warrs hill Road, North Chailey

- 3.303 An area of c. 5 ha that from aerial imagery review and a desk top study, the site appears to be dominated by Priority Habitat deciduous woodland. The northeast site boundary is adjacent to Priority Habitat deciduous woodland which adjoins to Warr's Wood ancient woodland (an irreplaceable habitat). The western boundary of the site is separated from Chailey Common Site of Special Scientific Interest (SSSI) and Local Nature Reserve (LNR) (which contains ancient woodland and Priority Habitat deciduous woodland. Chailey Common is a good example of the sub-atlantic English heath habitat. A variety of heathland plant communities are represented which in turn support diverse invertebrate and bird communities. The Lawton Recovery Map<sup>99</sup> identifies that this land parcel is located within a BOA.
- 3.304 The existing woodland habitat within the site could be enhanced, and depending on the soil characteristics, a more acid community associated with Chailey Common could be encouraged. Habitats could be tailored to the landscape character of the area.
- 3.305 To bring this site forward as potential BNG provision, it is recommended that the landowner/ agent is approached to determine if this is something that they

<sup>99</sup> Available at 7.-NRN-Mapping-Project\_Main-Report\_220421.pdf (sussexInp.org.uk) [accessed 16/03/2023]

The Plantation, Warrs hill Road, North Chailey Lewes District Boundary Site of Special Scientific Interest (SSSI) Local Nature Reserve (LNR) Local Wildlife Site (LWS) Ancient Woodland Priority Habitats Inventory Deciduous woodland Lowland heathland Lowland meadows Scaynes Hill, SSSI Traditional orchard -Priority Habitat but Holds Potential Importance fo Conservation of Biodiversity Good quality semi improved grassland No main habitat but additional habitats preser Chailey Common, S Chailey Common, LN Chailey vey Data ® Crown Copyright and database right 2023. provided by ® Lewes District Council 2022

would consider. In addition, a detailed study of the BNG potential of this site is recommended.

Plate 12: The Plantation, Warrs hill Road, North Chailey

#### **Grassington Farm**

- 3.306 The site is of c. 10 ha in size. A desk top review identified that the site is an existing organic egg farm, with existing barns. Public footpath through centre of the site. Habitats on site include improved grassland, and both Priority Habitat deciduous woodland and ancient woodland (an irreplaceable habitat). Chicken sheds are also present on site. Much of the north, east and south boundaries are adjacent to Priority Habitat deciduous woodland, with small parts of the south and west boundary being adjacent to ancient woodland. The site is located c. 60m from Chailey Common SSSI and LWS. The Lawton Recovery Map 100 identifies that this land parcel is located within a BOA.
- 3.307 The existing grassland would lend itself to habitat enhancement and the inclusion of a mosaic habitat on site including scrub, more grassland and a pond. The existing woodland on site would lend itself to enhancement. Habitats could be tailored to the landscape character of the area.
- 3.308 To bring this site forward as potential BNG provision, it is recommended that the landowner/ agent is approached to determine if this is something that they would consider. In addition, a detailed study of the BNG potential of this site is recommended.

<sup>&</sup>lt;sup>100</sup> Available at 7.-NRN-Mapping-Project\_Main-Report\_220421.pdf (sussexInp.org.uk) [accessed 16/03/2023]

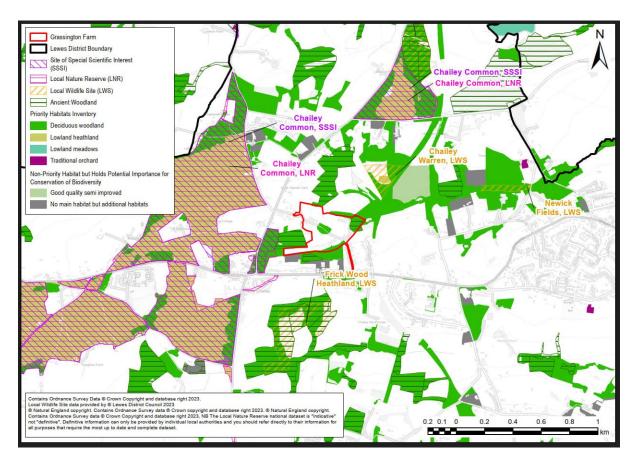


Plate 13: Grassington Farm

#### **Land West of Spithurst Lane**

- 3.309 An area of c. 16 ha that from aerial imagery review appears to consist of improved grassland, with pond to the southeast of the site, and an area to the west of Priority Habitat deciduous woodland and ancient woodland (an irreplaceable habitat) that is associated with Knowlands Wood, Barcombe Cross LWS that is designated for its ancient hornbeam coppice woodland with large pond on southern boundary with willow and oak forming the bankside on the northern half. The Lawton Recovery Map<sup>101</sup> identifies that this land parcel is an area of High Wetland Habitat Potential.
- 3.310 The existing grassland, pond and woodland would lend itself to habitat enhancement. Improving the grassland, pond and woodland quality on site, and potentially introducing some scrub, a few trees. The site has been identified as having potential to provide new wetland habitat and therefore should be investigated further. Habitats could be tailored to the landscape character of the area.
- 3.311 To bring this site forward as potential BNG provision, it is recommended that the landowner/ agent is approached to determine if this is something that they would consider. In addition, a detailed study of the BNG potential of this site is recommended.

<sup>&</sup>lt;sup>101</sup> Available at 7.-NRN-Mapping-Project\_Main-Report\_220421.pdf (sussexInp.org.uk) [accessed 16/03/2023]

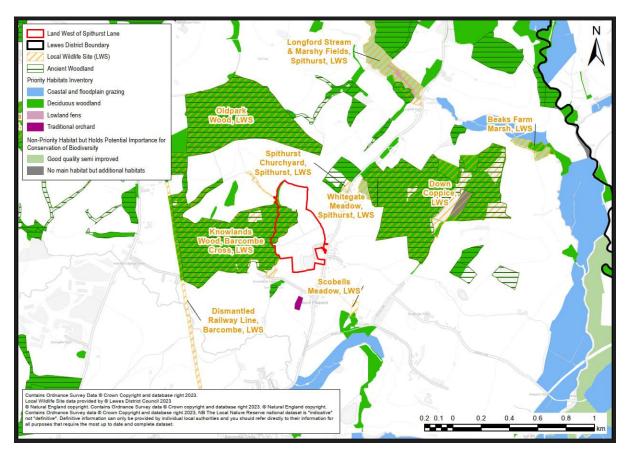


Plate 14: Land West of Spithurst Lane

#### Land Parcel: Land East and West of Green Lane, north of West Wood

- 3.312 An area of c. 20 ha that from aerial imagery review appears to consist of arable land with woodland, including Priority Habitat deciduous woodland and ancient woodland (an irreplaceable habitat). The southern and eastern boundaries of the site include Priority Habitat deciduous woodland and ancient woodland. The Lawton Recovery Map<sup>102</sup> identifies that a small portion of the site is identified as High Wetland Habitat Potential.
- 3.313 The existing arable land would lend itself to habitat creation, such as a matrix habitat including grassland, scrub, enhanced tree planting to compliment the surrounding woodlands and potentially a pond. The existing woodland within the site should be retained and could be enhanced. The site has been identified as having potential to provide new wetland habitat and therefore should be investigated further. Habitats could be tailored to the landscape character of the area.
- 3.314 To bring this site forward as potential BNG provision, it is recommended that the landowner/ agent is approached to determine if this is something that they would consider. In addition, a detailed study of the BNG potential of this site is recommended.

<sup>&</sup>lt;sup>102</sup> Available at 7.-NRN-Mapping-Project\_Main-Report\_220421.pdf (sussexInp.org.uk) [accessed 16/03/2023]

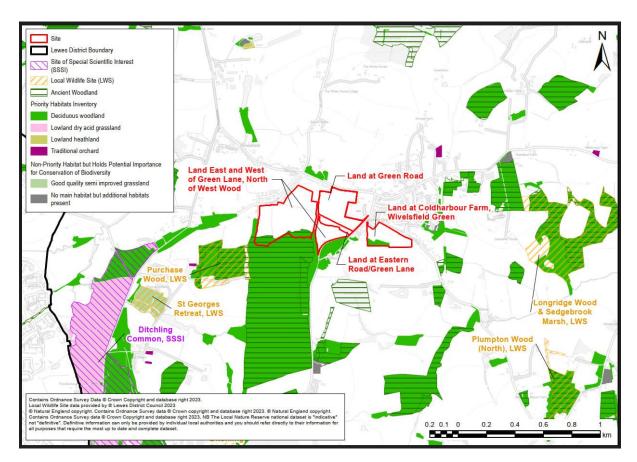


Plate 15: Land Parcel: Land East and West of Green Lane, north of West Wood LAA Site Conclusions

3.315 It is likely that all of the currently identified large LAA sites discussed in this report (taking account of existing biodiversity value) would be needed to achieve 10% BNG for the Local Plan given the total off-site requirement identified in this report. Note that this is based on the use of typologies. In practice, the capacity may exist for greater BNG on-site once allocations have been made. Additional areas may also be required, to achieve 10% BNG. However, the rejected LAA sites detailed above provide a good basis to start talking to landowners as these owners have already shown themselves to be potentially open to use of their land. Other potential opportunities for BNG are discussed in the following section.

# LAA Green Infrastructure Site: Land at Wivelsfield Farm, North Common Road

- 3.316 An area of c. 29 ha that from aerial imagery review appears to consist of arable land with grazed pasture, including hedgerows, mature trees and a pond. Any waterbodies on site may constitute a Priority Habitat. The site is located immediately adjacent to land parcels of ancient woodland (an irreplaceable habitat) and priority habitat deciduous woodland. The Lawton Recovery Map<sup>103</sup> identifies that a small portion of the site is identified as High Wetland Habitat Potential.
- 3.317 The existing arable land would lend itself to habitat creation, such as a matrix habitat including grassland, scrub, enhanced tree planting to compliment the surrounding woodlands and potentially a pond. The existing linear features of treelines, hedgerows and waterbodies within the site should be retained and

<sup>&</sup>lt;sup>103</sup> Available at 7.-NRN-Mapping-Project\_Main-Report\_220421.pdf (sussexInp.org.uk) [accessed 16/03/2023]

- could be enhanced. The site has been identified as having potential to provide new wetland habitat and therefore should be investigated further Other habitat enhancement/ creation could be tailored to the landscape character of the area.
- 3.318 To bring this site forward as potential BNG provision, it is recommended that the landowner/ agent is approached to determine if this is something that they would consider. In addition, a detailed study of the BNG potential of this site is recommended.

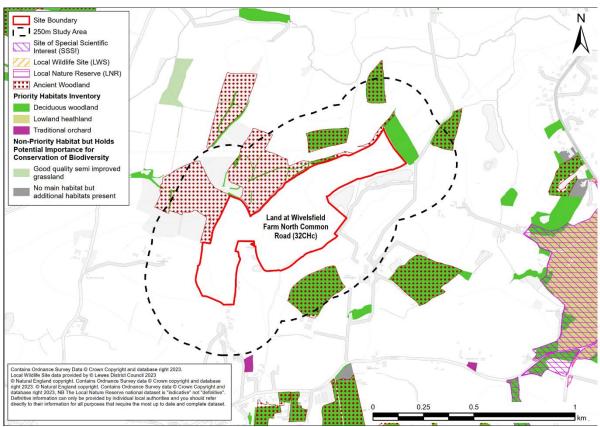


Plate 16: Land Parcel: Land East and West of Green Lane, north of West Wood

### **Other Opportunities for BNG Provision**

#### South Downs Way Ahead Nature Improvement Area<sup>104</sup>

- 3.319 South Downs National Park Authority is improving areas of chalk grassland in and around Lewes through conservation grazing by sheep, as part of the South Downs Way Ahead Nature Improvement Area goals. They are planning a series of events to engage with the local communities and promote the social, health and wellbeing benefits to be gained from the natural habitats of the South Downs.
- 3.320 Whilst it is noted that the NIA is located within the SDNP, it could potentially provide an opportunity for BNG provision associated with Lewes Local Plan. In addition, areas of farmland outside the NIA that are not currently funded for restoration to calcareous grassland could be chosen by the Council or developers as locations to target off-site BNG as they would not only achieve the BNG requirements of Lewes Council policy but also contribute to the joined up and resilient ecological network intended to be achieved by the NIA.

<sup>&</sup>lt;sup>104</sup> Available at [ARCHIVED CONTENT] South Downs Way Ahead Nature Improvement Area (nationalarchives.gov.uk) [accessed 19/05/2023]

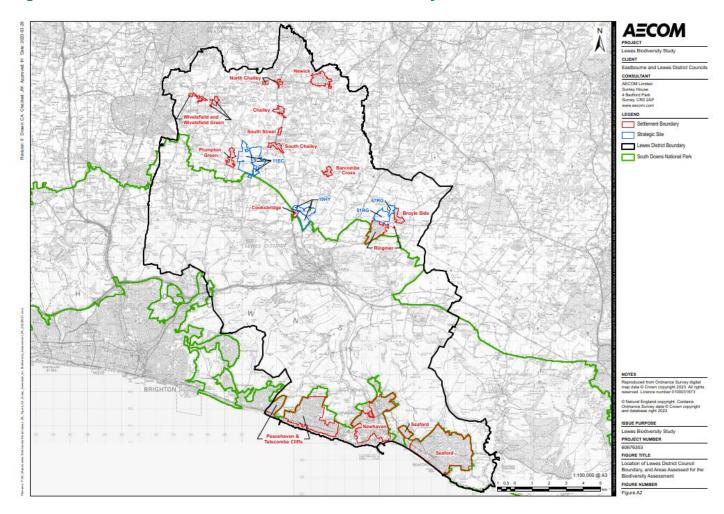
#### Wilder Ouse

- 3.321 The Wilder Ouse project is a Sussex Wildlife Trust-led initiative that brings together people across the River Ouse catchment to restore natural processes and create a robust Nature Recovery Network, with restored ecological connectivity, ecosystem function and climate resilience through nature-based solutions. The aims of the project include to deliver nature-based solutions that help wildlife to thrive, create networks of land that are protected and enhanced for wildlife, to allow habitats to expand and for wildlife to increase, which will ensure that they are resilient to change and to maximise the opportunities that protecting and enhancing wildlife brings for climate change mitigation and adaptation across the Ouse catchment.
- 3.322 As with expanding on the South Downs Way Ahead NIA goals by targeting delivery of BNG around those areas of South Downs programmed for calcareous grassland restoration and improved connectivity, The Wilder Ouse project could also potentially provide an opportunity for BNG provision for the Neighbourhood Plan. Areas already identified for restoration/improvement and already funded could not be counted to BNG for development sites (as that would risk double-counting) but new areas of BNG to offset the impact of development could be targeted to the River Ouse corridor outside locations currently covered by the Wilder Ouse project, thus improving both the BNG potential of the development site and the resilience, scope and scale of the Wilder Ouse project.

# **Appendix A : Figures**

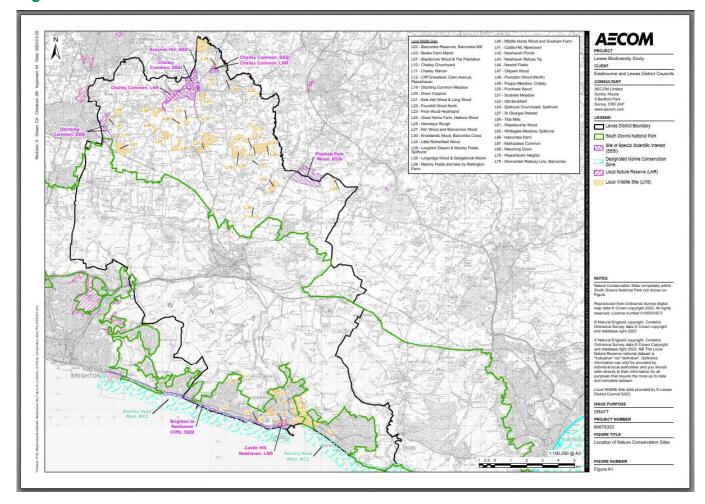
# A.1 Figure A1 Location of Lewes District Council Boundary, and the Areas assessed for the Biodiversity Assessment

Figure A 1: Location of Lewes District Council Boundary, and the Areas assessed for the Biodiversity Assessment



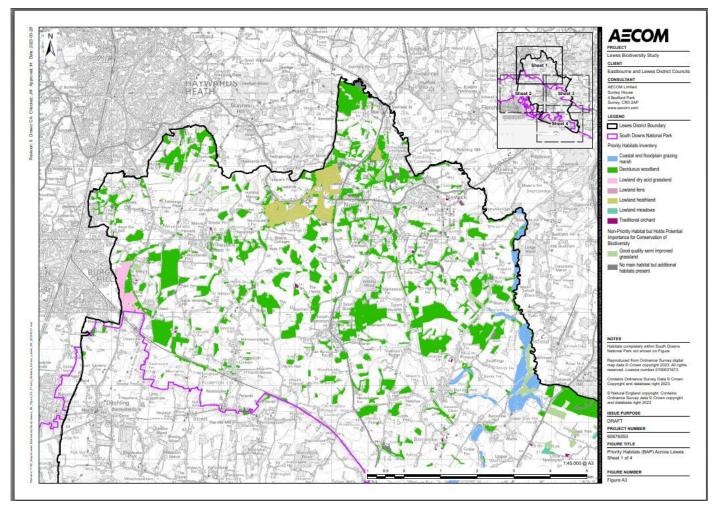
# A.2 Figure A2 – Location of Nature Conservation Sites

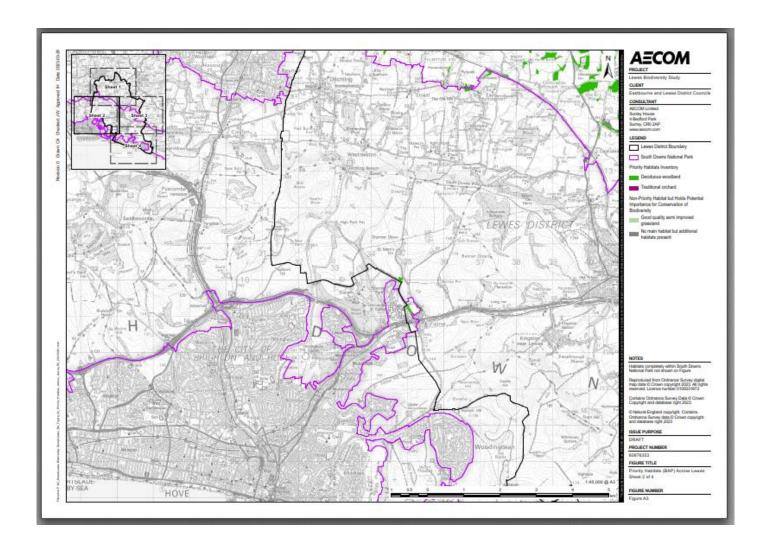
Figure A 2: Location of Nature Conservation Sites

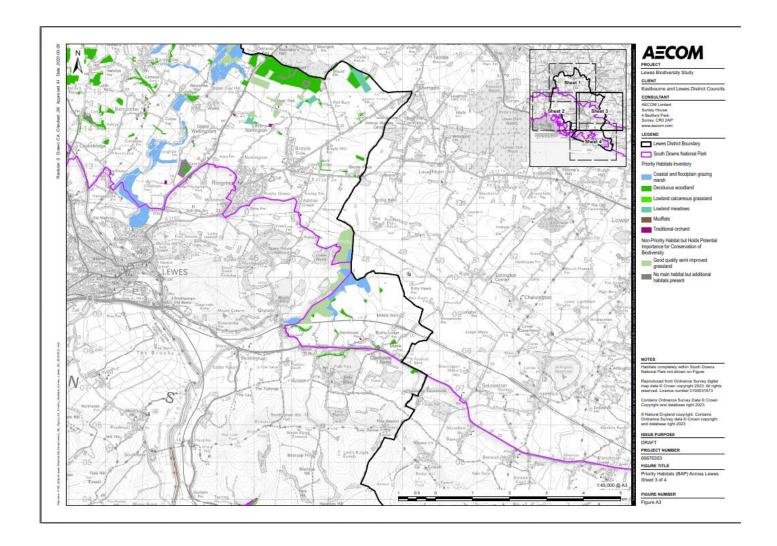


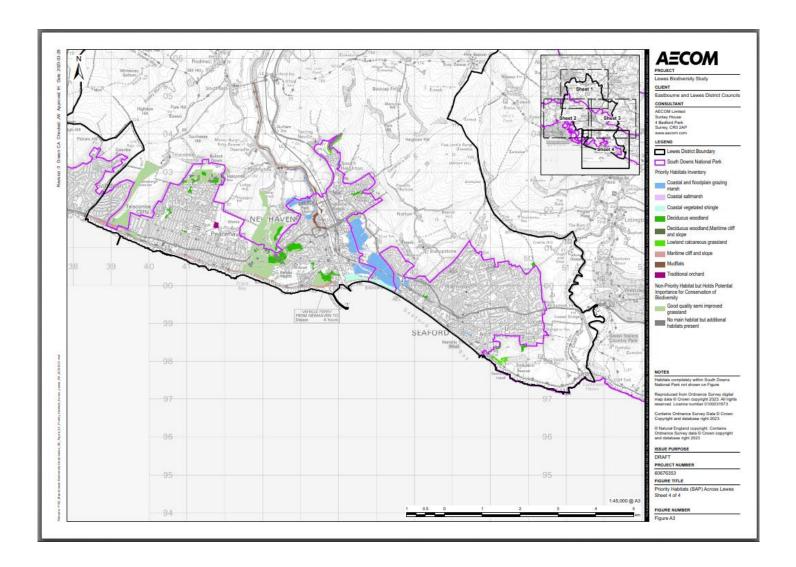
# A.3 Figure A3 – Priority Habitats (BAP) Across Lewes

Figure A 3: Priority Habitats (BAP) Across Lewes









# **Appendix B: Biodiversity Metric 3.1 Calculations**

# **B.1 Small Greenfield Residential**

**Typology 1** 

Typology T		
	Habitat units	9.60
On-site baseline	Hedgerow units	0.00
	River units	0.00
	Habitat units	0.00
On-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation & enhancement)	River units	0.00
0 " 10/ 1	Habitat units	-100.00%
On-site net % change	Hedgerow units	0.00%
(Including habitat retention, creation & enhancement)	River units	0.00%
	Habitat units	27.45
Off-site baseline	Hedgerow units	0.00
	River units	0.00
0 % ' ' ' ' ' ' ' '	Habitat units	38.08
Off-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation & enhancement)	River units	0.00
m . 1	Habitat units	1.03
Total net unit change	Hedgerow units	0.00
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00
TT ( 1 ) ( ) ( ) ( ) ( )	Habitat units	10.76%
Total on-site net % change plus off-site surplus	Hedgerow units	0.00%
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00%
Trading rules Satisfied?	Yes √	

**Typology 2** 

Typology Z		
On-site baseline	Habitat units	9.60
	Hedgerow units	0.00
	River units	0.00
	Habitat units	0.00
On-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation & enhancement)	River units	0.00
0 " 10/ 1	Habitat units	-100.00%
On-site net % change	Hedgerow units	0.00%
(Including habitat retention, creation & enhancement)	River units	0.00%
	Habitat units	22.80
Off-site baseline	Hedgerow units	0.00
	River units	0.00
0,6 :1 1:1	Habitat units	33.44
Off-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation & enhancement)	River units	0.00
m . 1	Habitat units	1.04
Total net unit change	Habitat units Hedgerow units	1.04
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)		
(including all on-site & off-site habitat retention, creation & enhancement)	Hedgerow units	0.00
(including all on-site & off-site habitat retention, creation & enhancement)  Total on-site net % change plus off-site surplus	Hedgerow units River units	0.00
(including all on-site & off-site habitat retention, creation & enhancement)	Hedgerow units River units Habitat units	0.00 0.00 10.88%
(including all on-site & off-site habitat retention, creation & enhancement)  Total on-site net % change plus off-site surplus	Hedgerow units River units Habitat units Hedgerow units	0.00 0.00 10.88% 0.00%

Lewes Biodiversity Study

# **B.2 Medium Greenfield Residential**

On-site baseline	Habitat units Hedgerow units River units	46.32 0.00 0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units Hedgerow units River units	19.33 0.00 0.00
On-site net % change (Including habitat retention, creation & enhancement)	Habitat units Hedgerow units River units	-58.26% 0.00% 0.00%
Off-site baseline	Habitat units Hedgerow units River units	92.00 0.00 0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units Hedgerow units River units	0.00 0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units Hedgerow units River units	5.23 0.00 0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units Hedgerow units River units	11.28% 0.00% 0.00%
Trading rules Satisfied?	Yes√	

# **B.3 Large Greenfield Residential**

	Habitat units	71.82	
On-site baseline	Hedgerow units	0.00	
On-site post-intervention	River units	0.00	
	Habitat units	57.82	
	Hedgerow units	0.00	
(Including habitat retention, creation & enhancement)	River units	0.00	
O	Habitat units	-19.49%	
On-site net % change	Hedgerow units	0.00%	
(Including habitat retention, creation & enhancement)	River units	0.00%	
	Habitat units	48.00	
Off-site baseline	Hedgerow units	0.00	
	River units	0.00	
Off -:tt :tt:	Habitat units	70.41	
Off-site post-intervention	Hedgerow units	0.00	
(Including habitat retention, creation & enhancement)	River units	0.00	
TI-t-1	Habitat units	8.41	
Total net unit change	Hedgerow units	0.00	
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00	
	Habitat units	11.71%	
Total on-site net % change plus off-site surplus	Hedgerow units	0.00%	
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00%	
Trading rules Satisfied?	Yes√		

# **B.4 Small Brownfield Residential**

Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	Hedgerow units River units	0.00%
	Habitat units	10.88%
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00
Total net unit change	Hedgerow units	0.00
m - 1 1 - 1	Habitat units	2.61
(Including habitat retention, creation & enhancement)	River units	0.00
Off-site post-intervention	Hedgerow units	0.00
	Habitat units	83.61
	River units	0.00
Off-site baseline	Hedgerow units	0.00
	Habitat units	57.00
(Including habitat retention, creation & enhancement)	River units	0.00%
On-site net % change	Hedgerow units	0.00%
0 1 10/ 1	Habitat units	-100.00%
(Including habitat retention, creation & enhancement)	River units	0.00
On-site post-intervention	Hedgerow units	0.00
	Habitat units	0.00
	River units	0.00
On-site baseline	Hedgerow units	0.00
	Habitat units	24.00

# **B.5 Large Brownfield Residential**

On-site baseline	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
	Habitat units	3.47
On-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation & enhancement)	River units	0.00
0 '	Habitat units	0.00%
On-site net % change	Hedgerow units	0.00%
(Including habitat retention, creation & enhancement)	River units	0.00%
	Habitat units	0.00
Off-site baseline	Hedgerow units	0.00
	River units	0.00
	Habitat units	0.00
Off-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation & enhancement)	River units	0.00
W + 1 + '+ 1	Habitat units	3.47
Total net unit change	Hedgerow units	0.00
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00
	Habitat units	100.00%
Total on-site net % change plus off-site surplus	Hedgerow units	0.00%
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00%
Trading rules Satisfied?	Yes√	

# **B.6 Office**

	Habitat units	1.20
On-site baseline	Hedgerow units	0.00
	River units	0.00
	Habitat units	1.34
On-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation & enhancement)	River units	0.00
0 '	Habitat units	11.72%
On-site net % change	Hedgerow units	0.00%
(Including habitat retention, creation & enhancement)	River units	0.00%
	Habitat units	0.00
Off-site baseline	Hedgerow units	0.00
	River units	0.00
	Habitat units	0.00
Off-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation & enhancement)	River units	0.00
T	Habitat units	0.14
Total net unit change	Hedgerow units	0.00
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00
	Habitat units	11.72%
Total on-site net % change plus off-site surplus	Hedgerow units	0.00%
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00%
Trading rules Satisfied?	Yes√	

# B.7 Large Housing/ Mixed Use (Greenfield Development Site)

	Habitat units	387.08
On-site baseline	Hedgerow units	0.00
	River units	0.00
	Habitat units	436.50
On-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation & enhancement)	River units	0.00
0 4 10/ 1	Habitat units	12.77%
On-site net % change	Hedgerow units	0.00%
(Including habitat retention, creation & enhancement)	River units	0.00%
	Habitat units	0.00
Off-site baseline	Hedgerow units	0.00
	River units	0.00
0,000	Habitat units	0.00
Off-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation & enhancement)	River units	0.00
m . 1	Habitat units	49.43
Total net unit change	Hedgerow units	0.00
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00
	Habitat units	12.77%
Total on-site net % change plus off-site surplus	Hedgerow units	0.00%
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00%
	Yes√	

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