ECOLOGICAL EXPERTISE, EVOLVED

Streamside, Harper's Road, Ash

Biodiversity Management and Enhancement Strategy

Prepared on behalf of

Bourne Homes Ltd

Final Report

15 November 2023

19/03-2B

Streamside, Harper's Road, Ash

Biodiversity Management and Enhancement Strategy

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1. INTRODUCTION

Background

1.1 Ecological Planning & Research Ltd (EPR) was appointed by Bourne Homes Ltd in November 2023 to provide updated ecological advice in regard to the Proposed Development at Streamside, Harper's Road, Ash (Hereafter referred to as the 'Site').

1.2 A number of ecological surveys were carried out during 2017 by Peach Ecology, the results of which were submitted within an Ecological Assessment (Peach Ecology, 2017). An Ecological Appraisal was undertaken by EPR in 2019 and again in 2022 to verify the baseline condition of the Site and to record any variations in habitat types present and their suitability to support protected/notable species. Updated protected species surveys were undertaken by EPR in 2022 in relation to bats and reptiles. The following Biodiversity Management and Enhancement Strategy (BMES) has been produced considering the 2017 Ecological Assessment, the 2019 and 2022 Ecological Appraisal and updated protected species surveys as well as a detailed desktop study undertaken in 2022.

Site Location and Project Overview

1.3 The Site lies on the eastern outskirts of Ash, to the south of the A323 (central grid reference SU 90425 50818; **Map 1**). The Site comprises a residential dwelling, garage and other associated buildings and a garden within the southern extent. A small stream, flowing east to west, passes through the centre of the Site. To the north of the stream is a small area of woodland and an improved grassland field with trees around its border.

1.4 With the exception of the village of Ash and the town of Aldershot to the west, the surrounding landscape is predominantly made up of agricultural or pasture land, with the Thames Basin Heaths Special Protection Area (SPA) and Thursley, Ash, Pirbright & Chobham Special Area of Conservation (SAC) to the north.

1.5 The Proposed Development for the Site includes the creation of 24 residential dwellings with associated access and landscaping, with areas of retained woodland. After development, the Site will be divided up into areas owned privately by the new householders, and communal areas and the prescriptions detailed in this BMES document will be implemented by a Management Company (**Appendix 1**).

Purpose of this Document

1.6 The purpose of this Biodiversity Management and Enhancement Strategy (BMES) is to:

- Detail the features of ecological importance within the Zone of Influence (ZoI) of the proposals, and draw together in one place the habitat creation and management measures that are necessary to prevent significant adverse effects upon them (in addition

to the mitigation measured specified in the Peach Ecology Ecological Assessment 2017 – see **Appendix 4** for an overview of these mitigation measures);

- Prescribe the new habitat creation and restoration proposals, and other biodiversity enhancements, that are necessary to deliver the net gain in biodiversity required by paragraph 174(d) of the NPPF;
- Set management objectives for retained and newly created areas of habitat, to ensure these maintain the favourable conservation status of species and habitats of ecological importance and are enhanced in the long-term;
- Detail the ongoing specific management prescriptions needed to achieve these management objectives; and
- Specify the measures to monitor the success of the management plan and if necessary adapt the approach taken to account for unforeseen circumstances.

2. RELEVANT LEGISLATION AND POLICY

2.1 The following articles of nature conservation legislation and planning policy are of relevance to the Proposals and this document:

- The Environment Act 2021;
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way (CROW) Act 2000;
- The Natural Environment and Rural Communities (NERC) Act 2006;
- The Protection of Badgers Act 1992;
- The National Planning Policy Framework (NPPF) (2023); and
- The Guildford Borough Council: The Local Plan: Strategy and Sites (2015 - 2034)

2.2 In addition to the above, biodiversity objectives detailed in the following documents have been considered:

- Guildford Borough Council: The Local Plan: Strategy and Sites (2015 - 2034), specifically:
  - POLICY P5: Thames Basin Heaths Special Protection Area
  - POLICY ID4: Green and blue infrastructure Biodiversity
- Guildford Borough Council: The Local Plan: Development Management Policies (part 2 of the Local Plan adopted on 22 March 2023), specifically:
  - POLICY P6: Protecting Important Habitats and Species
  - POLICY P7: Biodiversity in New Developments
  - POLICY P10: Water Quality, Waterbodies and Riparian Corridors
  - POLICY D12: Light Impacts and Dark Skies
  - POLICY D17: Renewable and Low Carbon Energy Generation and Storage
- South East Regional Spatial Strategy (RSS) saved Policy NRM6: Thames Basin Heaths Special Protection Area;
- Planning Practice Guidance Notes: Natural Environment (June 2021);
- Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services;
- The 25 Year Environment Plan; and
- Surrey Nature Partnership: Biodiversity Planning in Surrey (Including Appendix 1: Protected species in Surrey and Appendix 2: Statutory designated sites in Surrey)

2.3 Full details of legislation relevant to the proposals and this document can be found in **Appendix 2.**

3. DESCRIPTION OF EXISTING ECOLOGICAL FEATURES

Introduction

3.1 This section describes the existing ecological features (habitats and species) which have been recorded at the Site during ecological surveys (conducted in 2017, 2019 and 2022). This Management and Enhancement Strategy will focus on habitats within the Site boundary, including the creation, enhancement and management of habitats to ensure biodiversity on the Site is maintained and enhanced.

Zone of Influence

3.2 The Zone of Influence of a Proposed Development is defined by the CIEEM Guidelines for Ecological Impact Assessment in the United Kingdom (2018 – updated in 2019) as *"… the area(s) over which ecological features may affected by the biophysical changes caused by the proposed project and associated activities"*.

3.3 The Zone of Influence of the Proposed Development will encompass different areas in respect of each ecological receptor, depending upon its location and sensitivity, and the spatial extent of the relevant biophysical change (e.g light, noise, habitat loss). However, as mentioned above this BMES is concerned only with those activities and resultant biophysical changes that occur within the Site boundary and its immediate surroundings (recreational pressure, which could affect designated sites beyond the site boundary, is addressed in the EcIA Report (EPR, 2022)).

Ecological Surveys Undertaken

3.4 The surveys listed below in **Table 2.1** have been undertaken at the Site by Peach Ecology and EPR and have been used to inform the Biodiversity Management and Enhancement Strategy.

Table 2.1 Ecological surveys undertaken to date

Survey Type	Ecological Consultant	Date
Phase 1 Habitat Survey	Peach Ecology	June 2017
Bat Activity Transect	Peach Ecology	June – October 2017
Building Inspection	Peach Ecology	June 2017
Emergence/Re-entry Survey	Peach Ecology	June – August 2017
Static Detector Surveys	Peach Ecology	June – October 2017
Reptile Survey	Peach Ecology	June – November 2017
Bird Surveys	Peach Ecology	June – July 2017
Dormice Survey	Peach Ecology	June – November 2017
Badger Survey	Peach Ecology	June 2017
Ecological Appraisal (using UKHabs Classification)	EPR	October 2019
Ecological Appraisal (using UKHabs Classification)	EPR	January 2022
Badger Survey	EPR	January 2022
Update Building Inspection	EPR	May 2022
Ground Level Tree Assessment	EPR	May 2022
Update Emergence/Re-entry Surveys	EPR	May – July 2022
Bat Walked Transect Surveys	EPR	May – July 2022

Automated Static Detector Surveys	EPR	May – July 2022
Reptile Survey	EPR	May - June 2022
Badger Walkover Survey	EPR	July 2022

Habitats

3.5 Below is a summary of the habitats taken from the most recent Ecological Appraisal by EPR in 2022.

Buildings and Hardstanding (u1b: Developed Land; sealed surface)

3.6 A number of buildings were recorded within the southern extent of the Site, including the main house, a garage, a pool house and some derelict sheds (**Map 2**). A driveway and paved areas surrounding the buildings were also recorded.

3.7 Building inspections identified the main house, garage and pool house as having varying suitability for roosting bats, whilst the sheds were considered to be of negligible suitability. The Main House and garage were found to support roosting bats in surveys undertaken by Peach Ecology in 2017 (see Bat Section below).

Garden with introduced shrub and ruderal vegetation (u1: Built-up areas and gardens)

3.8 The garden to the main residential property within the southern extent of the Site is of little ecological value and is subject to regular mowing. Similarly, whilst some introduced shrub may provide foraging resources for invertebrates and birds, they are not considered to be of any real ecological value. The ruderal vegetation recorded along the southern boundary of the Site comprised largely of Common Nettle *Urtica dioica,* Cleavers *Galium aparine* and Herb Robert *Geranium robertianum* which is common and widespread and is considered to be of low ecological value.

Woodland (w1c: Lowland mixed deciduous woodland)

3.9 The north of the Site is predominantly contains deciduous woodland, with a large clearing (**Map 2**). The woodland itself is largely dominated by mature Oak *Quercus robur* and Ash *Fraxinus excelsior*, with elements of understorey comprising of Hazel *Corylus avellana,* Elm *Ulmus minor*, Holly *Ilex aquifolium*, wild privet *Ligustrum vulgare*, Hawthorn *Crataegus monogyna*, Field Maple *Acer campestre* and Yew *Taxus baccata,* with climbers such as Honeysuckle *Lonicera periclymenum* and Ivy *Hedera helix*. The ground flora includes Nettle *Urtica dioica*, Woundwort *Stachys sylvatica*, Bramble *Rubus fruticosus agg*, Wood Avens *Geum urbanum,* lesser celandine *Ficaria verna*, ground ivy *Glechoma hederacea*, greater stitchwort *Stellaria holostea* and Herb-Robert.

3.10 A small number of Ancient Woodland Vascular Plant species (AWVPs) were noted including Holly, Wood Sedge *Carex sylvatica*, Bluebell *Hyacinthoides non-scripta* and Bush Vetch *Vicia sepium*, mainly around the boundaries of the Site.

3.11 Despite this, the woodland is recently formed, with historical evidence showing it as an open field with from as recently as the 1940's. Considering this, alongside the current condition of the woodland, it is likely to be of **Local** importance for biodiversity.

Hedgerows (h2: Hedgerows)

3.12 The hedgerow recorded along the north-west boundary of the Site was dominated by pedunculate Oak, Ash, Holly and young Elm. This hedgerow is considered to be an old hedgerow of high ecological value, which is supported by the presence of Bluebell within the ground flora.

3.13 The hedgerow adjacent to this section to the south, which connects to the central woodland, is gappy and consists mostly of young trees including Oak and Ash. For this reason, it is of limited ecological value.

3.14 A hedgerow was also recorded within the south-west boundary of the Site and was dominated by Hawthorn and Blackthorn. This hedgerow is considered to be of low ecological value.

Species poor grassland (g4: Modified grassland)

3.15 The central clearing within the northern extent of the Site is dominated by Perennial Ryegrass *Lolium perenne* and includes species which are indicative of disturbance, such as Cleavers and Common Nettle. Its peripheries are bordered with scrub and occasional trees. This area of grassland is not considered to be of any significant ecological value.

Dense scrub (h3h: Mixed scrub)

3.16 An area of dense scrub and scattered trees was recorded along the southern bank of the stream that passes through the Site. Species recorded within this habitat type included Hazel and Ash. The scrub and scattered trees are considered to be of low ecological value as may provide foraging resources for invertebrates and birds.

Introduced Shrub

3.17 An area of Introduced shrub was also recorded along the southern bank of the Stream. Species recorded included Garden Privet *Ligustrum ovalifolium* and *Mahonia* Sp. Species recorded are non-native ornamental planting with offers negligible ecological value.

Stream (r2b: Other rivers and streams)

3.18 The Stream bisects the Site from east to west and runs along the south-eastern boundary (**Map 3**). Its banks are steep and shaded from dense scrub along its southern edge. As a result of the shaded conditions, parts of the bank are bare. A small amount of brooklime *Veronica beccabunga* was recorded within the stream but no other submerged, emergent or floating aquatic vegetation was recorded. The stream was heavily silted in 2019-. When surveyed in 2022 water levels were low and leaf debris was recorded within the Stream.

3.19 The stream is uniform along much of its length, with steep banks, creating a homogenous habitat of little ecological value.

Protected or Notable Species

Bats

Roosting Bats

3.20 Several roosts were also confirmed on the Site during surveys conducted by Peach Ecology in 2017. These roosts were subsequently confirmed during surveys undertaken by EPR in 2022. A summary of the roosts recorded within the Site are as follows:

- A **Brown Long-eared *Plecotus auritus* maternity roost** within the roof of the Main bungalow;
- A **Common pipistrelle *Pipistrellus pipistrellus* day roost** within the southern gable of the Main bungalow; and
- A **Common Pipistrelle day roost** within the garage on the western gable (wooden cladding).

3.21 Full details of results of the suite of bat surveys undertaken by EPR in 2022 can be found in Protected Species Report (EPR, 2022).

Foraging/Commuting

3.22 Bat surveys were carried out between June and October 2017 by Peach Ecology, with at least eight species confirmed as using the Site. These included high levels of foraging by Common Pipistrelle *Pipistellus pipistrellus* and moderate foraging by Brown Long-eared bats *Plecotus auratus* and Myotis *Sp* (likely including but not confirmed as Brandt's Bat *Myotis brandti,* Daubenton's *Myotis daubentonii*, Natterer's *Myotis nattereri* and Whiskered Bat *Myotis mystacinus*). Occasional activity was also recorded by Soprano Pipistrelle *Pipistrellus pygmaeus*, Noctule *Nyctalus noctula,* Serotine *Eptesicus serotinus,* Leisler's bat *Nyctalus leislerii* and Barbastelle *Barbastella barabastellus.*

3.23 EPR carried out updated walked bat transects supplemented by automated static detector surveys between May and July 2022. During these surveys Common Pipistrelle and Soprano Pipistrelle were recorded frequently foraging across the site. A small number of *Myotis* species were recorded along with Noctule, Serotine and Leisler's bat. Nathusius' Pipistrelle *Pipistrellus nathusii* and Barbastelle were also recorded.

3.24 The bat assemblage utilising habitats within the ZoI it likely to be of no more than **County Importance** for nature conservation.

Reptiles

3.25 Reptile surveys carried out in 2017 identified a 'low' population of Slow Worm *Anguis fragilis* and Common Lizard *Zootoca vivipara* within the clearing in the northern part of the Site, with a peak count of seven adult Slow Worm and one Common Lizard.

3.26 Since 2017, when the surveys were carried out, ongoing management has resulted in a short grassland sward within the woodland clearing, which no longer presents suitable habitat for reptiles. In addition to this, a reduction in scrub habitats around the periphery of the Site has decreased the amount of edge habitats available, therefore further reducing the Sites suitability for reptiles.

3.27 The adjacent development scheme recorded 'exceptional' populations of Slow Worm, and a 'good' population of Common Lizard (ACD Environmental, 2016). Reptile exclusion fencing had been installed around the adjacent development site and it is understood that the animals have all been translocated to a nearby off-site receptor location, thereby preventing any further reptiles migrating into the Proposed Development Site.

3.28 EPR conducted update reptile surveys in 2022 with the results verifying the previous findings by Peach Ecology. A low population size of Slow Worms was recorded with a peak adult count of four. Full details of results can be found in the Protected Species Report (EPR, 2022).

3.29 Given the relatively widespread nature of Slow Worms and Common Lizard, and the low numbers found, the reptile assemblage is considered to be of **Zone of Influence** importance for nature conservation.

Breeding Birds

3.30 During the breeding bird surveys carried out on Site, a total of 25 species were recorded within the Site, not all of which will be breeding within the Site boundary. The species recorded included a number of common and widespread species, as well as several Birds of Conservation Concern. These included Stock Dove *Columba oenas*, Swift *Apus apus*, Starling *Sturnus vulgaris*, Song Thrush *Turdus philomelus*, Dunnock *Prunella modularis*, and Bullfinch *Pyrrhula pyrrula*.

3.31 A Nightjar *Caprimulgus europaeus* was also observed to be foraging over the woodland canopy during the June bat survey. However, given the short amount of time spent on Site, and the habitats available it is likely that the Site falls within the Nightjar's wider foraging range and on this occasional was simply used for opportunistic foraging.

3.32 With regard to the evaluation method developed by Fuller (1980 & 1982), adapted with respect to modern breeding bird populations, the bird assemblage is considered to be of no more than **Local Importance**.

Hazel Dormice

3.33 Surveys for Hazel Dormice *Muscardinus avellanarius* did not return any evidence of presence within the Site. The Proposed Development will also result in limited impacts on arboreal habitat and as a result Hazel Dormice are not considered further within this BMES.

Badger

3.34 Badger activity was recorded within the Site boundary, although no main Badger sett was recorded within the Site and as such this report includes measures to enhance the foraging resource for badgers within the proposals.

3.35 For information relating to Badgers *Meles meles* please see the **Confidential** survey results presented in Appendix 5 of the Ecological Impact Assessment (EPR, 2022).

4. MANAGEMENT AIMS AND OBJECTIVES

Ecological Management Aims

4.1 The principal aims for the Streamside Biodiversity Management and Enhancement Strategy are to:

- Ensure the avoidance, mitigation or compensation of significant negative impacts on features of ecological importance by ensuring that retained habitats of ecological importance (either directly or due to their habitat value for faunal assemblages) are restored, and new habitats of ecological value created, as required; and
- Provide biodiversity enhancements, by ensuring that through a combination of restoration of retained habitats and creation of new ones, that net gains in biodiversity are delivered as a result of the Proposed Development.

Ecological Management Objectives

4.2 Practically, the Aims above will be achieved through the implementation of measures to deliver the following ecological objectives:

- **Objective 1** – To maintain, restore and further enhance retained woodland habitats, including woodland edges;
- **Objective 2** – To create new grassland habitats of ecological importance;
- **Objective 3 –** To create and restore new native hedgerow habitat on site;
- **Objective 4** – To create and maintain suitable reptile habitats and provide green corridors to facilitate movement;
- **Objective 5** – To enhance bird habitats on Site;
- **Objective 6** – To enhance invertebrate habitats on Site;
- **Objective 7** – To maintain and further enhance riparian and aquatic habitats;
- **Objective 8** – To compensate for the loss of bat roosts on Site and ensure suitable bat foraging and commuting habitats are maintained; and
- **Objective 9** - To create and maintain new native broadleaved woodland habitats to the south of the stream.

4.3 Through the implementation of the above objectives, a number of habitat types that are listed as being of 'Principal Importance' for the conservation of biodiversity under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 will either be created or, where extant, have their conservation status improved through restoration management. These habitat types include:

- Lowland Dry Acid Grassland; and
- Hedgerows.

4.4 Whilst the creation of these Priority habitats will be the target, the Biodiversity Net Gain Metric calculation has assumed on a precautionary basis that failure to create habitats that fully reach

Priority status may be possible and as such for the purposes of the Defra Metric creation of Other lowland acid grassland has been assumed.

5. PRESCRIPTIONS FOR MANAGEMENT AND MAINTENANCE ACTIONS

Introduction

5.1 This section provides prescriptions and methodologies for the set up and ongoing Management and Maintenance of the habitats within the Site, allowing the Ecological Management Objectives stated to be achieved. This section should be read in conjunction with **Appendix 1**, which shows plans for the future development of the Site.

5.2 The spatial layout of proposed habitats and location of individual mitigation measures and biodiversity enhancement measures are shown on **Map 3** and **Map 4**.

Principles

5.3 To achieve the proposed creation and management aims and objectives, existing habitats need to be protected and enhanced, and new habitats created. This will be achieved through the following objectives.

Objective 1 – To maintain and further enhance woodland habitats including woodland edges

5.4 The majority of woodland on Site is to be retained under the current Site Plan (See **Appendix 1**). Habitat enhancement and management is to be used to improve the condition of the woodland and increase its value to biodiversity.

Woodland Edges

5.5 The woodland edges are to be managed in such a way to improve the variety of successional stages available to wildlife and create a mosaic of habitats that provides variable microclimates for invertebrates. Management will be undertaken to maintain such interfaces as part of the management scheme in a graded non-linear condition, incorporating sheltered bays or 'scallops' in order to maximise the complexity and extent of edge habitat.

5.6 Selective vegetation thinning will be used to create the edge habitat and 'scallops'. Where additional planting is necessary to create the transitional habitats, scrub planting will include Hawthorn *Crataegus monogyna* and Blackthorn *Prunus spinosa*, whilst tree species should include Hazel *Corylus avellana* and Field Maple *Acer campestre* with occasional Pedunculate Oak *Quercus robur*. The scalloped edges should protrude up to 4m from the woodland edge at its maximum and 2m at the minimum distance. Cutting will prevent the encroachment of scrub and maintain the successional habitat.

5.7 Buffers of mown and unmown grass will be maintained between the woodland edge and the Proposed Development. The inclusion of areas of unmown grass and scrub will provide additional habitats for reptiles and invertebrates and improve connectivity across the Site to the wider landscape.

Woodland

5.8 At present, the Holly *Ilex aquifolium* within the woodland has become dominant, and is aiding in the shading of the woodland floor which is suppressing the growth and development of ground flora. However, Holly is in itself a native woodland species which provides an important foraging resource for birds, so it should not be eradicated. Therefore, initial clearing of some Holly will

take place to open up areas of the woodland floor to facilitate the growth of ground flora, whilst leaving small discrete clumps of Holly scattered throughout the woodland.

5.9 Selective thinning will also take place, whereby some of the taller (but not the oldest) Oak and Ash *Fraxinus excelsior* specimens, particularly in the woodland area along the northern edge of the stream, will be removed. These trees are at present competing with each other for the light, and have grown tall, contributing to the shading out of the understorey and ground flora. Removing just a few individuals will help to alleviate this problem and encourage greater diversity.

5.10 Rhododendron *Rhododendron ponticum* and Cherry Laurel *Prunus laurocerasus* were recorded within the northern extent of the site in the woodland edge habitat. Rhododendron is an Invasive non-native species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). Cherry Laurel is also considered an invasive species as it is capable of shading out native species and degrades habitats.

5.11 The Rhododendron, and Cherry Laurel, should be controlled by physical removal. Cuts should be undertaken during winter (September to March) of the more mature plants followed immediately by stump treatment.

5.12 Ideally, plants removed from the soil should be chipped with the chippings being retained onsite. If seeds are present, chipping can still take place, however, the chippings should be monitoring for regrowth. Any regrowth should also be treated with herbicide (for large plants >1.3 m) or foliar application (with 'sticker' adjuvant for small plants < 1.3 m) between May to October. For cut stump treatment, a hole should be drilled in the stump to act as a reservoir for the herbicide.

5.13 Plants removed from the soil can be taken offsite as green waste to a commercial composting facility if seeds are not present, or as waste to a commercial incineration facility, or an appropriately licenced landfill, if fruits are present.

5.14 Control is considered complete once two full growth seasons have passed without regrowth. Following development, the Site should be monitored for the presence of rhododendron plants, with any plants found being treated with herbicide by foliar application.

5.15 The woodland will be managed in the long-term through rotational coppicing and periodic clearance of small areas of understorey to maintain a diversity.

5.16 Small areas of the understorey not exceeding 10% of the total area of woodland in any one year, will be selected each year or every other year and coppiced, so that the whole retained area of woodland is ultimately coppiced on a long rotation (every 10-15 years). This will prevent understorey trees and shrubs becoming excessively tall and 'leggy' and to ensure low-growing vegetation and ground flora persists as effective ground cover for invertebrates and small mammals, and to allow the development of woodland ground flora. The overall coverage of Hazel in the understorey will be increased by layering the existing specimens.

5.17 Native woodland bulbs/rhizomes will also be planted in small clumps throughout the woodland areas (avoiding the outer edges and site boundaries where the existing ground flora is more interesting and does not need to be disturbed). Ground flora Species planted will include; Bluebell *Hyacinthoides non-scripta*, Wood Sorrel *Oxalis acetosella* and Wood Anemone *Anemone nemorosa.*

5.18 All newly planted stock will be native species originally sourced within the UK (of as local provenance as possible), sourced from a reputable conservation supplier with a clear and transparent biosecurity policy.

Habitat Management

5.19 Newly planted trees and shrubs must be protected using tree guards. Planting will take place between October and March for deciduous species in order to maximise the chance of successful establishment. Cell grown whips will have an extended planting season, and container-grown plants may be planted all year round (although given the sandy/gravelly nature of soils in this location, these may require watering initially in summer periods during droughts). Where new planting fails to establish, specimens will be replaced like-for-like.

5.20 Depending on the growth rate of the trees, guards should be removed and recycled 3-5 years after planting. Selective thinning and removal of nurse species will be carried out to gradually reduce tree density in the areas where a scrub edge is desired.

5.21 Where practical, cut logs and stems of trees will be left to decay within suitable locations on Site. This will increase deadwood habitats for fungi and saproxylic invertebrates such as Stag Beetle, and provide a food source for birds and small mammals.

5.22 No herbicides or pesticides are to be used within the woodland or woodland edges.

5.23 Litter (including the existing accumulation of litter and dumped waste) is to be removed and appropriately disposed of off Site.

5.24 Any Rhododendron or Cherry Laurel seedlings should be removed where feasible. Stump regrowth should also be treated.

Felling

5.25 Felling will only be carried out on trees that are considered to be a significant hazard or would be deemed beneficial to the ecology of the area. Major maintenance work or felling of trees must be undertaken outside of the bird nesting season (March – August inclusive), unless there are over-riding health and safety concerns. In this instance, the advice of a suitably qualified ecologist should be sought prior to felling.

5.26 Prior to the removal of any significant trees (e.g. those with decay features such as rot holes, split limbs or Ivy cladding), an ecologist should be consulted to ensure Bat roosts are not lost or disturbed.

5.27 If mature trees fall in extreme weather conditions they should, where practical, be left to decay where they lie and not be removed. If it is necessary to move the deadwood, it is best to transfer it only a short distance away from the tree, positioned in dappled shade. The tree stumps should be retained and not ground up, as some species require buried dead wood and roots in which to develop. Dead leaves and decaying vegetation should not be removed but left undisturbed to provide potential breeding sites for detritivorous invertebrates.

Objective 2 – To create new grassland habitats of ecological value

5.28 In order to improve the variety of habitats available to biodiversity, new areas of grassland, of a type that is ecologically valuable are to be incorporated into the Site. Ground tests carried out on Site have shown that it is capable of supporting Lowland Dry Acid Grassland, a Habitat of

Principal Importance under Section 41 of the NERC Act (2006). As stated above whilst the target will be to create lowland dry acid grassland, on a precautionary basis in the event this created habitat fails to reach full Priority status the development will result in the creation of 0.09ha of other lowland acid grassland.

Habitat Creation

5.29 Unless the areas in question are already open, to create open areas for acid grassland to be created, small areas of woodland will be cleared to create glades. The scalloped edges of the woodland will also support small areas of acid grassland, and small clearings will be created along the southern edge of the retained woodland that is located along the northern edge of the stream. In order to enable light to reach the new grassland areas in this location, the existing garden Privet hedgerow along the southern edge of the stream will be removed, and some of the overhanging Oak branches will be cut back (in effect a 'crown lift' will be performed to enable light to enter from the south). Any sandy and gravelly substrates dug up for the footings of the new dwellings can be re-used on site to create acid grassland areas, as bare sandy banks are ideal for this purpose.

5.30 Although some species that are characteristic of Lowland Acid Grassland have been recorded on Site (including Sheep's Sorrel *Rumex acetosella*), indicating that the prevailing physicochemical conditions are appropriate for this habitat type, there is insufficient diversity of appropriate species nearby to have confidence that acid grassland will develop naturally in cleared areas. Consequently, it will need to be newly created in retained areas from imported seed.

5.31 The most appropriate way to create such areas would be to source a local acid grassland donor site from a nearby site that is actively managed for conservation, and with the land manager's permission, collect seed either as green hay (via a hay cut taken in July/August when seed is still hanging in the sward), or as brush-harvested seed. If a local donor site cannot be identified, then an appropriate conservation seed mix will need to be purchased and imported.

5.32 An appropriate seed mix to use for acid grassland creation across the majority of the site would be Emorsgate EM7 (or equivalent mix from an alternative supplier) for localised areas closer to the stream and in the southern part of the site that are slightly wetter and have a higher clay content, this should be mixed approximately 50:50 with Emorsgate EM4 (or equivalent mix from an alternative supplier) would be appropriate. The content of these two seed mixed are outlined in **Appendix 3**.

5.33 The soil surface of areas intended for acid grassland creation should be prepared to receive seed by cultivation and harrowing to create a 'fine tilth'. Seed should then be broadcast directly onto the soil surface and rolled in to promote intimate contact between the seed and soil.

Habitat Management

5.34 Management of the new grassland will be essential for the structure, balance and diversity. Without management the grassland would become rank and course and eventually turn into scrub or ruderal areas.

5.35 Once the grassland has fully established, a rotational cutting regime will be employed (leaving small areas uncut each year) to ensure that some level of shelter is provided at all times for reptiles and to create a mosaic of habitats.

5.36 The cutting of acid grassland should be timed to ensure seeds have been dispersed prior to cutting, generally August/September. The grassland should be cut to approximately 100 to 150mm and all cuttings should be removed form site and composted to prevent the release of nutrients back into the grassland (the objective is to create nutrient poor conditions that aid the establishment of biodiversity and prevent vigorous growth of grass species that would suppress the establishment of wildflowers).

5.37 The establishment of the acid grassland will be visually checked each summer. If any ruderal species or invasive plants are identified within this area, then they must be removed before they release seed in the summer. No fertilisers or pesticides (including weedkillers) are to be used.

5.38 Re-sowing may be required in the first year of management as seed dormancy and erratic germination means that only a proportion of the seeds are likely to geminate in any one flush. However, it should be noted that the development of a diverse high-quality acid grassland depends upon the fact that the ground conditions are sandy/gravelly and freely draining, and that patches may parch/drought and die in summer. Allowing this process to take place is essential for acid grassland creation, as the bare patches that result provide new germination niches/opportunities for the seeds of annual wildflower species to disperse into. Areas of acid grassland creation should not therefore be watered beyond the first summer of establishment, as regular watering will prevent this natural process form taking place.

Objective 3 – to create and restore new hedgerow habitat

Habitat Creation

5.39 Hedgerows are an extremely valuable habitat for wildlife, providing food and shelter for a wide range of species, as well as providing connectivity to the wider landscape. The existing hedgerows on Site will be enhanced and managed so as to provide further resources for local biodiversity, and the creation of new native hedgerow will further improve the Site connectivity.

5.40 Of the hedgerows present on Site, one section at the north of the Site is considered to be an old hedgerow of high ecological value, which is supported by the presence of Bluebell within the ground flora (**Map 3**). This hedgerow is to be retained as part of the Proposed Development.

5.41 The remaining hedgerows on Site are to be enhanced in order to improve their condition and their value to wildlife.

5.42 Gaps in the existing hedgerows will be filled using laying or layering where possible. Where supplementary planting is required, species will include Hazel and Blackthorn as the predominant species, in keeping with the species mix present within the existing hedgerows.

5.43 Newly created hedgerows will comprise of native species to include mainly Hazel, Blackthorn and Hawthorn, with occasional Oak (**Map 3**). An earth bank will be created onto which the new hedgerow planting will occur, by excavating soil from next to the planting location to create a shallow ditch that will run alongside.

5.44 The trees/shrubs will be planted in two staggered rows, 0.3m apart and protected during establishment using tree guards. Planting will take place between November and March to maximise the chance of successful establishment, although container-grown plants can be planted all year round if required. Cell grown whips will also have an extended planting season.

Habitat Management

5.45 During establishment, any skewed trees/shrubs should be re-staked as required. Any diseased, dead or dangerous trees will be removed. Plants that die within 10 years of planting will be removed and replanted following any required remedial action. Tree guards should be removed and recycled after a 3-5 year period, depending on growth rates.

5.46 The hedgerows will be managed using traditional methods, such as hedge laying. Trimming of hedgerows should take place in January or February to avoid the nesting bird season and to maintain winter foraging opportunities. This should be carried out on a 2-3 year rotational basis, avoiding trimming all hedgerows at the same time to allow good levels of cover to build up to increase nesting opportunities for nesting birds.

5.47 Selective pollarding within the existing high value hedgerow will be used as a means of rejuvenating outgrown or over-mature vegetation.

5.48 No herbicides or pesticides are to be used on any of the hedgerows on Site.

Objective 4 – To create and maintain suitable reptile habitats and provide green corridors to facilitate movement

5.49 Suitable reptile habitat in the centre of the north part of the Site will be lost to the Proposed Development. Therefore, compensatory habitat should focus on creating new and additional habitats to provide basking and foraging opportunities on the Site – particularly around the retained woodland areas and boundaries.

5.50 The transitional interface between grassland and scrub or woodland is of particular value as a habitat feature for reptiles. The creation of scallops along the woodland edge, and the creation of new grasslands (particularly those which are south-facing), with some tussocky areas, on Site will therefore create valuable reptile habitat. Management will be undertaken to maintain this interface in a graded, non-linear condition in order to maximise the complexity and extent of edge habitat.

5.51 By maintaining edge habitats along the length of the Site, connectivity for reptiles along the whole Site, and within the wider landscape, will be maintained.

5.52 A reptile hibernaculum will be created on the south facing aspect of the woodland edge to provide cover and hibernation opportunities (**Map 4**). In addition to this, at least 10 log piles will be positioned around the Site, in woodland edges to provide additional cover and also hibernation opportunities for reptiles.

5.53 The creation of log piles will also increase the invertebrate assemblage which in turn will provide a food source for reptiles.

Objective 5 – To enhance bird habitats on Site

5.54 As set out in the Ecological Assessment, additional nesting habitats will be provided through the provision of nest boxes. The following nest boxes (or similar) will be positioned within the retained woodland on Site (**Map 4**):

- Four Schwegler 1B 32mm (Great Tit *Parus major*, House Sparrow *Passer domesticus)*

- Four Schwegler 1B 26mm (Blue Tit *Cyanistes caeruleus*)
- Two Schwegler 2H Open Front (Robin *Erithacus rubecula*, Pied Wagtail *Motacilla alba*)
- One Schwegler 5 Tawny Owl

5.55 In addition to the above, the following (or similar) will be installed onto the new buildings within the development:

- Five Schwegler 1SP Sparrow Terrace
- Five Schwegler 17 Swift Box

5.56 Kingfisher *Alcedo atthis* nest boxes will also be incorporated into the banks of the Stream in a secluded location that is unlikely to be subject to significant disturbance. As Kingfishers tend to have two broods throughout the breeding season, and each brood is laid in a separate tunnel, two Schwegler Kingfisher Nest Tunnels will be placed within the bank of the Stream. The nest boxes will be placed a minimum of 70cm apart, in a steep bank of the Stream, a minimum of 1m above the waterline. Additional planting, particularly of thorny species such as Hawthorn, should be planted around the banks where the tunnels are located in order to minimise the risk of disturbance.

5.57 Additional foraging opportunities will be provided through the provision of native fruit and berry-bearing plant species within the landscaping plans. Such species will include Blackthorn, Wild Cherry *Prunus avium* and Elder *Sambucus nigra.* By including a range of difference species which provide fruit and berries at various times of the year foraging opportunities will be provided year-round. Alongside this, the inclusion of thorny species such as Hawthorn *Crataegus monogyna* will also be included in order to create additional areas of cover for birds and their nests, thereby reducing the risk of predation from domestic cats.

Management

5.58 All nest boxes should be cleaned out annually by removing old nesting material to ensure continued use and to prevent the spread of disease. Nest boxes may only be cleaned out between 1 September and 31 January although it is recommended to carry out management from October onwards when late broods will have fledged. Any dead eggs must be destroyed promptly and must not be kept. Chemical cleaners are best avoided, but if deemed necessary should be animal and environmentally friendly.

Objective 6 – To enhance invertebrate habitats on Site

5.59 As set out in the Ecological Assessment, at least 10 invertebrate boxes will be included within the proposed development, to provide additional shelter opportunities for the local invertebrate assemblage. Using a variety of boxes which cater for a range of species will further diversify the local assemblage. The following nest boxes (or similar) will be used;

- Schwegler Clay & Reed Insect Nesting Aid;
- Schwegler Solitary Bee Nester; and
- Schwegler Woodcrete Insect Box.

5.60 Furthermore, a Stag Beetle *Lucanus cervus* loggery will be created, positioned within the woodland edge, within a partially shaded location, to provide a habitat and foraging resource for Stag Beetle larvae.

5.61 In addition to this, the inclusion of native flowering species, such as Crab Apple *Malus sylvestris* Wild Cherry, and Dog Rose *Rosa canina* within the landscaping plans will provide additional foraging resources for invertebrates and will aid in increasing invertebrate diversity.

5.62 Areas of newly created flower-rich acid grassland, described above, will also provide an additional foraging resource for nectaring invertebrates.

5.63 Dead and decaying plant material are vital components of a properly functioning ecosystem and play a key role in sustaining biodiversity, soil fertility and energy flows. A wide range of plant and animal species depend on deadwood habitats, or as a food source, particularly invertebrate species. Therefore, where practical, cut logs and stems of trees will be left to decay in the woodland.

5.64 The creation of scalloped woodland edges, as detailed above in Objective 1, provides a varied habitat structure and reduces shading which benefits invertebrates, in particular breeding woodland butterflies such as the Silver-Washed Fritillary *Argynnis paphia*.

5.65 The management and enhancement prescriptions for the Stream, detailed in Objective 7, further diversifies the habitats available on the Site, thereby increasing the diversity of the local invertebrate assemblage.

5.66 Improving the diversity and abundance of invertebrates on Site will in turn have positive impacts on wider biodiversity, including flora, bats, birds and reptiles.

Objective 7 – To maintain and further enhance riparian and aquatic habitats

5.67 The below prescriptions have taken into account the modelling results outlined in the Flood Risk Advice Letter (Ambiental Environmental Assessment, 2020). Based on the Environment Agency data, the Site is located in an Area that does not have a recorded flood history and is therefore identified to only be at risk of overland flows. The results of the modelling undertaken by Ambiental indicate that a small increase (less than 100mm depth) is predicted to occur in the woodland area as a result of the Proposed Development.

5.68 At present, the Stream running through the Site, is shaded and overgrown, with little sunlight reaching the channel, and a lack of aquatic vegetation as a result. Therefore, selective vegetation thinning will take place along the banks to increase light penetration, facilitating the growth of aquatic and marginal vegetation.

5.69 In addition to this, the Stream is uniform for much of its length with relatively steep banks, thereby creating a homogenous habitat. To increase the diversity of habitats along its length, where possible, small areas of the banks away from principal roots of the nearby larger retained trees, will be reprofiled to create a variety of more shallowly sloping gradients (**Map 3**).

5.70 To increase the variety of aquatic habitats, woody debris from the woodland will be used to form a small (and low) obstruction within the watercourse. This will slow the flow of water at this section and further diversify the freshwater habitats available. The obstruction will be created

so as to still allow the movement of water underneath and above, so as to not block the channel entirely and increase the risk of flooding.

5.71 The inclusion of logs and branches will form pools and riffles within the channel, which in turn will slow the water flow and increase the variety of freshwater habitats.

5.72 To aid in the establishment of aquatic and marginal vegetation, planting will take place along the length of the Stream. The most effective method of establishing aquatic planting is to broadcast seed mix directly onto limited areas of exposed bank, where the soil has been raked into a fine tilth beforehand. A native seed mix, such as Emorsgate EP1 – Pond Edge Mixture, will be used.

Habitat Management

5.73 Bank vegetation should be cut on a 2-3-year rotation, with not more than 50% of bankside areas cut in any one year, and all cutting removed from the channel. Vegetation thinning may be required more frequently.

5.74 The dams and pools shall be monitored and where necessary, excessive leaf litter and debris removed to ensure the continued movement of water.

5.75 No pesticides or herbicides are to be used in or around the Stream.

5.76 Litter should be removed from the water channel and surrounding banks on a regular basis.

Objective 8 – To compensate for the loss of bat roosts on Site and ensure suitable bat habitats are maintained

5.77 The Main Bungalow and Garage, confirmed as bat roosts, are to be demolished as a result of the Proposed Development. This will result in the loss of a Brown long-eared Bat Maternity roost and day roost and a Common Pipistrelle day roost. In order for the buildings to be demolished lawfully a European Protected Species Licence (EPSL) is required which will require survey data from the most recent survey season.

5.78 To compensate for the loss of roosts, bat boxes are to be installed within the woodland, and a new bat loft will be incorporated into the car barn that sits over the parking spaces for plots 3-6, adjacent to the woodland, to compensate for the loss of the Brown Long-eared maternity roost. As part of the EPSL application, a method statement will be submitted which will provide further detail on the number, locations and specifications of compensation roosts.

5.79 In addition to the roosts provided as compensation under the EPSL, additional bat boxes will be positioned within the woodland, and incorporated into the new dwellings on Site. These boxes will be aimed at those species recorded using the Site, such as Pipistrelle *Sp,* Brown Long-eared bats, *Nyctalus Sp* and Myotis *Sp.* The following (or similar) boxes will be provided:

- Three Schwegler 2FN Bat Box (suitable for Noctule, Daubenton's)
- Three Schwegler 2F Universal Bat Box (suitable for Pipistrelle *Sp*, Daubenton's)
- Five Schwegler 1FE Bat Access Panel (suitable for Pipistrelle *Sp*)
- Five Schwegler 2FE Wall-mounted Bat Shelter (suitable for Pipistrelle *Sp,* Barbastelle, Whiskered bat, Long-eared *Sp*)

5.80 In order to maintain foraging and commuting routes a sensitive lighting strategy will be implemented. The lighting strategy will take into account the guidance provided in Bats and Lighting (Stone, 2013), and the guidance contained within *Bats and Artificial Lighting in the UK* (2018) (Guidance note 08/18 produced jointly by the Bat Conservation Trust and the Institute of Lighting Professionals). The lighting strategy will ensure that:

- Lighting around the Proposed Development will be kept as low as safety levels permit;
- Luminaires should lack UV elements, and metal halide, fluorescent sources should not be used;
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, but a warm white spectrum (<2700 Kelvin) should be adopted to reduce the blue light component);
- Lights will be shielded to make light directional and as close as possible to full cut-off in order to minimise light spill;
- Bollard or low-level downward directional luminaires should be used to retain darkness above;
- Any security lighting should be set on motion sensors and short (1min) timers);
- Accessories such as baffles, hoods or louvres should be used to reduce light spill;
- Foraging and commuting routes, particularly hedgerows and woodland edges, will be kept in as dark a condition as it possible; and
- The central woodland will remain unilluminated.

5.81 In addition to the above, appropriate lighting will be installed within residential gardens prior to first occupation, in keeping with the above recommendations, in a bid to reduce the impact of lighting that might otherwise be installed by new residents to meet this need.

5.82 The provision of native species within the landscaping plans will benefit the local invertebrate assemblage, which in turn will benefit the local bat assemblage. Night flowering species, such as native Honeysuckle *Lonicera periclymenum*, will be included within the landscaping plans to provide a foraging resource for night-flying invertebrates such as moths.

5.83 Enhancements to the Stream, as described within Objective 7 above, will also provide a foraging habitat for bats, particularly those species associated with water, such as Daubenton's Bat and Soprano pipistrelle.

Objective 9 *- To create and maintain new native broadleaved woodland habitats to the south of the stream*

Woodland Creation

5.84 Planting of the canopy/understorey will include native species of local provenance including as Silver Birch, Hazel, Hawthorn, Alder Buckthorn *Frangula alnus,* Holly and Pedunculate Oak. Native Honeysuckle *Lonicera periclymenum* will also be planted as a native climber.

5.85 All newly planted stock will be native species originally sourced within the UK (of as local provenance as possible), sourced from a reputable conservation supplier with a clear and

transparent biosecurity policy. Newly planted trees and shrubs must be protected using tree guards.

5.86 Planting will take place between October and March for deciduous species in order to maximise the chance of successful establishment. Cell grown whips will have an extended planting season, and container-grown plants may be planted all year round (although given the sandy/gravelly nature of soils in this location, these may require watering initially in summer periods during droughts). Where new planting fails to establish, specimens will be replaced like-for-like.

5.87 Tree-ties should be inspected in spring and adjusted in autumn to prevent constriction of the stem and after two growing seasons the trees should make sufficient root growth to anchor the tree and the supporting stake should be removed.

5.88 During the initial two-year establishment phase, watering should be undertaken at least 3 times a week particularly during drier months. Allow for watering during dry/drought periods up to 5 years following planting.

5.89 Depending on the growth rate of the trees, guards should be removed and recycled 3-5 years after planting. Selective thinning and removal of nurse species will be carried out to gradually reduce tree density in the areas where a scrub edge is desired.

5.90 A native wildlife friendly wildflower seed mix should be sown within the created woodland such as Emorsgate Woodland Mixture EW1. Any seed mix must only be of local provenance and native. The species mix should include where possible Bluebell *Hyacinthoides non-scripta*, Greater Stitchwort *Stellaria holostea*, Red Campion *Silene dioica* and Foxglove *Digitalis purpurea*. Manual weed pulling of undesirable species, such as Nettles and Thistles will be required as part of the on ongoing management to allow for the establishment of the wildflower seed mix.

5.91 All newly planted stock will be native species originally sourced within the UK (of as local provenance as possible), sourced from a reputable conservation supplier with a clear and transparent biosecurity policy. Prior to sowing the woodland seed mix the ground will be cleared of all unwanted vegetation from the areas to be sown (such as Nettles and Thistles). Seed is best sown in the autumn or early spring.

5.92 Woodland schemes are sown in a wide variety of circumstances with varying degrees of shading and other effects from tree roots. For this reason, the results of sowing seed will be quite variable and may need to be repeated. Establishment of ground cover can be slow and patchy and in deeper shade full ground cover may never reach 100%.

5.93 During the first growing season control of competitive weeds (brambles, nettles and grasses) will be required.

Habitat management

5.94 Pruning will encourage the trees to grow upwards to create a diverse canopy structure. The cut should be close to the tree trunk, square to the branch and preserve the bulge at its base but not cut flush with the main stem. Care should be taken to not damage the bark. Pruning should be undertaken over winter months to avoid the nesting bird period. If pruning is required during

the main nesting bird season (March-August inclusive) then a suitably qualified ecologist (SQE) will be required to ensure no nesting birds are present or would be disturbed by the works.

5.95 Once established, the woodland will be managed in the long-term (30 years) through periodic clearance of small areas (by coppicing) of understorey (not exceeding 10% of the total area of woodland in any one year) to create structural diversity as with the woodland enhancement. Newly planted trees will be left to establish for the first 5 years.

5.96 No herbicides or pesticides are to be used within the woodland.

5.97 Litter (including the existing accumulation of litter and dumped waste) is to be removed and appropriately disposed of off Site.

Additional Provisions

Hedgehogs

5.98 Hedgehogs *Erinaceus europaeus* are a Species of Principal Importance under S41 of the NERC Act 2006, and therefore sites with known Hedgehog habitat should provide enhancement measures. Given the habitats present on the Site, it is likely Hedgehogs utilise the area in some capacity.

5.99 Two Schwegler Hedgehog boxes will be located in suitable positions on Site. They will be situated on a linear feature, such as the woodland frontage, in a secluded area where they are unlikely to be disturbed.

5.100 Hedgehogs can move up to 1 mile a night whilst foraging, and therefore maintaining connectivity across greenspaces is vital, with a loss of connectivity cited as a significant cause of Hedgehog decline. As recommended within the Ecological Assessment, connectivity between residential gardens should be maintained via gaps in fences. These can be incorporated through specially designed gravel boards that provide a gap for hedgehogs of approximately 13cm x 13cm.

Soft Landscaping

5.101 Native species will be included within the landscaping plans, particularly fruit and berry-bearing species to provide additional foraging opportunities for birds, invertebrates and in turn bats. Such species will include:

- Wild Cherry;
- Crab Apple;
- Hazel; and
- Hawthorn.

Summary of Measures

5.102 As shown on **Map 3**, the proposed habitat creation and restoration measures implemented as part of the Proposed Development will lead result in the following habitat areas on Site:

- Other Lowland Acid Grassland (0.0423 ha)

- Other Broadleaved Woodland (0.0592 ha)
- Mixed Scrub (to include native species; 0.1063 ha)
- Stream (0.1192 km)
- Scattered Trees (0.1059 ha)
- Gardens (0.2611 ha)
- Buildings & Hardstanding (0.4632 ha)
- Native Species Rich Hedgerow* (0.1232 km)
- Native Hedgerow* (0.1750 km)

6. SUMMARY AND TIMING OF WORKS

6.1 **Table 6.1** below summarises works and timings required of habitat creation and management.

Table 6.1 Proposed works and Timescales

Feature	Activity	Timing	Notes
Woodland	Glade/Scallop Creation	During construction phase	Ground level tree inspections for Bats/Nesting Birds checks should be carried out prior to works where required.
	Enhancement Planting	October – March for deciduous species	-
	New woodland planting	October – March for deciduous species	
	Brash/Log piles to be created/left on-situ	Throughout construction and operational phases	-
	Pruning/Felling	As and when required	Ground level tree inspections for Bats/Nesting Birds checks should be carried out prior to works where required.
	Rhododendron/Cherry Laurel Removal	Cut during winter (September – March)	-
	Scrub Management	During construction phase	Nesting bird checks should be carried out prior to works where required
Acid Grassland	Seeding	September-November (preferable) or March-April	-
	Cutting	After seed dispersal, September	Arisings to be removed immediately to prevent the release of nutrients.
	Scrub Management	As and when needed to maintain acid grassland	-
Hedgerows	Creation/Enhancement planting	During construction phase/ October - March	-
	Laying	October - March	-
	Trimming	January – February	-
Reptiles	Create new reptile habitats and maintain	During construction phase, then as and when needed to	-

	through scrub removal and management	prevent scrub encroachment	
	Hibernacula creation	During construction phase	-
Birds	Installation of new nest boxes	During construction phase	-
	Cleaning out of boxes	Annually, October – January inclusive	-
Invertebrates	Cut logs and stems to be left to decay in woodland edges	Throughout construction and operational phase	-
	Installation of invertebrate boxes	During construction phase	-
	Creation of Stag Beetle logger	During construction phase	-
Stream	Vegetation thinning	During construction phase and ongoing as and when required	Nesting bird checks should be carried out prior to works where required
	Seeding	Sown in late Autumn or Spring	-
	Bank reprofiling	During construction phase	-
	Creation of dams, pools & riffles	During construction phase	-
Bats	Installation of bat boxes	Timeframes to be provided within EPSL	Locations and specifications to be provided within the EPSL
Hedgehogs	Provision of 2 Hedgehog boxes	During construction phase	-
Invasive Species	Removal and appropriate disposal	Throughout construction and operational phases	-

7. MONITORING, REVIEW AND DELIVERY

7.1 For the first 3 years, the Management Plan should be reviewed annually, so as to evaluate the condition of the habitats, to identify and address any problems which may arise and identify any modifications which may be needed to the management regime. After the initial 3 years, the Management Plan should be reviewed once every 5 years to ensure it is still relevant.

7.2 The ongoing Management Plan should be informed by ongoing monitoring of all the habitats and biodiversity enhancements on site. A key objective will be to identify any elements which fail to establish, and if necessary, remove and replace these elements. Where failures are deemed to be attributable to site conditions it may be necessary to consider suitable alternatives.

7.3 The current owners, Bourne Homes Ltd, will be responsible for the implementation during construction. Once construction is complete, the Site will be passed onto an appropriate management agent. Aspen Property Management Ltd will continue to manage and maintain areas covered by this document in accordance with the obligations as above (see communal areas shown on the areas plan in **Appendix 1**) and will be responsible for the ongoing management, monitoring and review.

8. REFERENCES

Ambiental environmental Assessment (2020). *Flood Risk Addendum Ref 5075-03-LTR*

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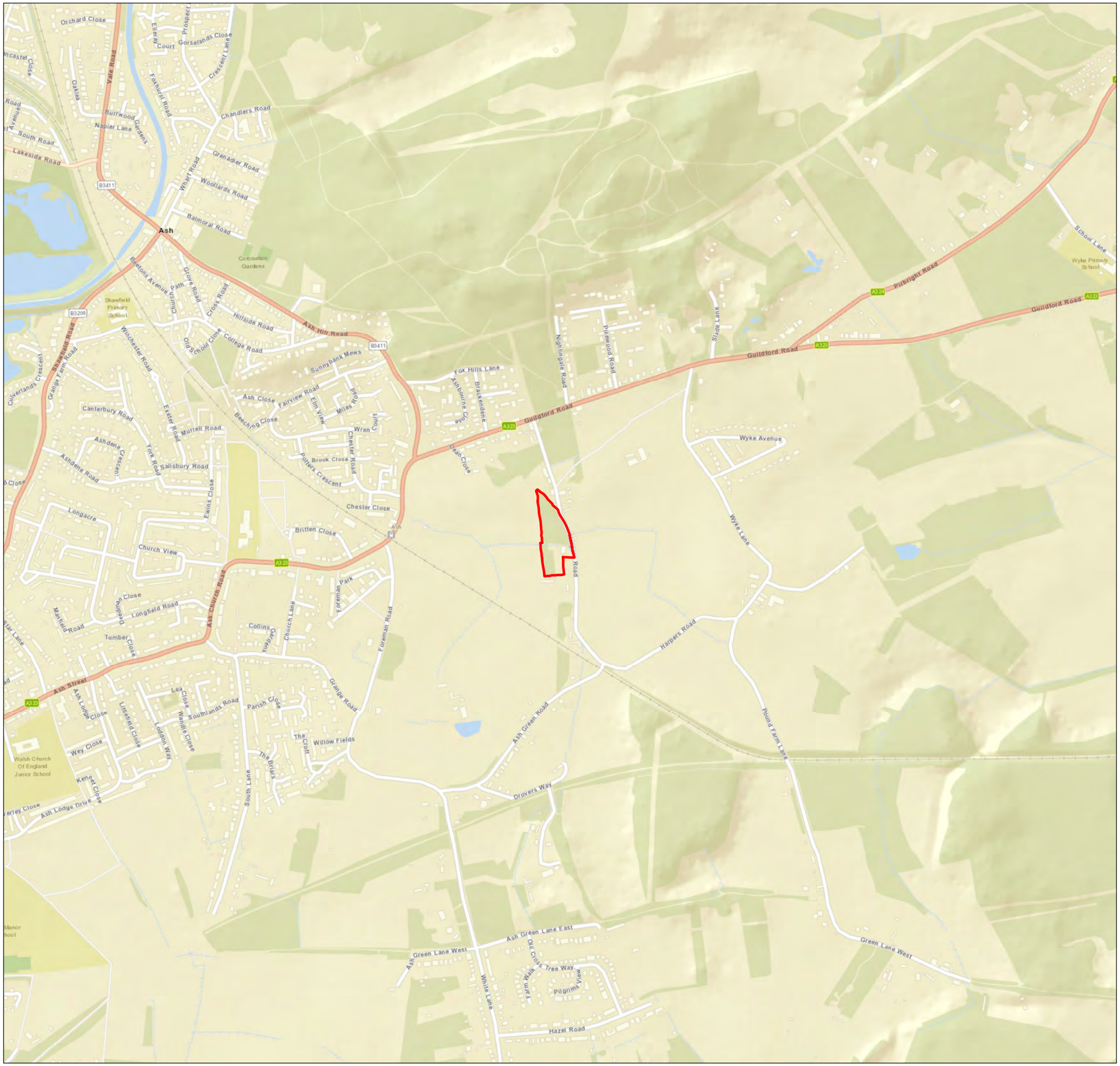
Maps



MAP 1 Site Location

KEY

Site boundary

SCALE: 1:10,000 at A3

0 100 200 300 400 500 Metres

N

EPR

CLIENT: Bourne Homes Ltd

PROJECT: Streamside, Harpers Road

DATE: March 2022

Y:\Streamside, Harpers Road\GIS\Mitigation Strategy\Map1_Sitelocation_P1903_1517_040322.mxd

P19/03

MAP 2 Pre Development Habitats

KEY

- Site boundary
- Buildings & Hardstanding (u1b) - 0.1283ha
- Bareground/Fly tipping - 0.0239ha
- Dense Scrub/Scattered Trees (h3h) - 0.0025ha
- Introduced Shrub (u1160) - 0.0567ha
- Lowland Mixed Deciduous Woodland (w1c) - 0.3568ha
- Modified Grassland (g4) - 0.3362ha
- Stream (r2b) - 0.1192km
- Vegetated garden (u1) - 0.3365ha
- Native Hedegrow with trees (h2) - 0.0384km
- Native Hedgerow - Species poor - 0.124km

SCALE: 1:900 at A3

0 10 20 30 40 Metres

N

EPR

CLIENT: Bourne Homes Ltd

PROJECT: Streamside, Harpers Road

DATE: 14 March 2023

Y:\Streamside, Harpers Road\GIS\Mitigation Strategy\Map2_HabitatsandFeatures_P1903_2137_140323.mxd

P19/03

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

MAP 3 Post Development Habitats (Habitat Creation/Management)

KEY

- Site boundary
- Lowland Acid Grassland - 0.0423ha
- Buildings & Hardstanding - 0.4632ha
- Gardens - 0.2611ha
- Mixed scrub - 0.1063ha
- Stream - 0.1192km
- Shallow sloping wetland habitat - Indicative only - 0.0022ha
- Lowland Mixed Deciduous Woodland - 0.3075ha
- Woodland with acid grassland 'glades' - 0.0592ha
- Existing high value hedgerow (0.0384km)
- Existing hedgerows to be enhanced (0.1232km)
- New native hedgerow (0.1750km)

SCALE: 1:900 at A3

0 10 20 30 40 50 Metres

N

EPR

CLIENT: Bourne Homes Ltd

PROJECT: Streamside, Harpers Road, Ash

DATE: November 2023

Y:\Streamside, Harpers Road\GIS\Mitigation Strategy\Map3_PostDevelopmentHabitats_P1903_2629_081123.mxd

P19/03

Proposed Site Plan Streamside, ECE Architecture, PL-01, Rev K, 03.11.23

MAP 4 Indicative Locations of Wildlife Boxes

KEY

- Site Boundary
- Schwegler 2F bat box
- Schwegler 2FN bat box
- Schwegler 1FE bat access panel
- Schwegler 2FE mounted bat shelter
- Compensation Brown long-eared maternity roost structure
- Schwegler 2H bird box
- Schwegler 1B 26mm bird box
- Schwegler 1B 32mm bird box
- Kingfisher tunnel
- Sparrow Terrace
- Swift Box
- Tawny Owl Box
- Hedgehog box
- Invertebrate box
- Stag Beetle loggery
- Reptile hibernacula

SCALE: 1:900 at A3

0 10 20 30 40 50 Metres

N

EPR

CLIENT: Bourne Homes Ltd

PROJECT: Streamside, Harpers Road, Ash

DATE: November 2023

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P19/03

Proposed Site Plan Streamside, ECE Architecture, PL-01, Rev K, 03.11.23

Appendix 1

Site Layout

CDM 2015 Health & Safety Information

This information relates only to 'Significant Hazards' identified on this drawing and is to be read in conjunction with the Designer's Risk Assessment Register.

Northern Site

1no.	2-Bedroom House	Semi-Detached
3no.	3-Bedroom House	Semi-Detached
1no.	4-Bedroom House	Detached
3no.	4-Bedroom House	Detached
Total	**8 Dwellings**	

Streamside Site

2no.	1-Bedroom Flat	Flats
3no.	2-Bedroom House	Semi-Detached
8no.	3-Bedroom House	Semi-Detached
3no.	3-Bedroom House	Detached
Total	**16 Dwellings**	

Key

- Affordable Housing
- Existing Windows
- Bin Storage Positions
- Refuse dragging distances
- Refuse collection point
- Gates
- Pedestrian access

GP	Gate Posts
PRF	Post & Rail Fence
CBF	Close Board Fence
F&RTH	Fire & Refuse Turning Head
CB	Car Barn
X	Blocked Window

Rev	Date	Revision Details	Dr	Ch
K	03.11.23	Draft submission pack	KB	MP
J	26.10.23	Updated to latest comments	GK	AK
I	25.10.23	Updated to latest comments	MP	AK
H	24.10.23	Updated to latest housetypes and highways	MP	AK
G	16.10.23	Housetypes on plot 18 & 19 amended.	AX	AK
F	05.10.23	Housetypes on plot 1 & 2 amended. Layout updated.	AX	AK
E	04.10.23	Updated layout	MP	AK
D	27.09.23	Oakside Cottage details added	MP	AK
C	25.09.23	Layout amended	MP	AK
B	13.09.23	Layout amended	KB	AK
A	04.09.23	Layout amended	KT	AK

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Client's Name
Bourne Homes

Job Title
Streamside and Land Adjacent, Harpers Road, Ash

Drawing Title
Proposed Site Plan
Streamside

Scale
1:500 @ A1 / 1:1000 @ A3

metres 10 20 30 40 50

Drawn	Checked	Date
KB	AK	16.06.23

Job No	Drawing No	Rev
6502	PL-01	K

Status
PRELIMINARY

CAD Plot date: 3/11/2023 - 10:24:23 6502 ash site layout planning.dwg

Appendix 2
Relevant Legislation & Policy

The Environment Act 2021

The Environment Act 2021 places a requirement on the Secretary of State to make regulations setting out long-term targets for air quality, water, biodiversity, resource efficiency and waste reduction. It also requires the Government to produce an Environmental Improvement Plan, to report on progress towards its goals annually, to meet the targets that are set in relation to the improvement of the natural environment and to produce remedial plans should this not be achieved.

In relation to water quality, the Act places new duties on the Government, Environment Agency and sewerage undertakers to reduce the frequency and harm of discharges from storm overflows on the environment, and for monitoring the quality of watercourses affected by those overflows.

It also includes a requirement for an independent Office for Environmental Protection (OEP) to be established, with responsibilities for monitoring and reporting on progress against environmental improvement plans and targets. The OEP will also have investigation and enforcement powers against public authorities failing to comply with environmental law when exercising their functions.

The Act makes provisions for 10% biodiversity gain to become a condition of planning permission in England, through amendments to the Town and Country Planning Act 1990. This will be measured through a biodiversity metric to be published by the Secretary of State. The Act also establishes Biodiversity Net Gain as a requirement for Nationally Significant Infrastructure Projects (NSIPs).

The Act also strengthens the biodiversity duty placed on public authorities through amendments to the Natural Environment and Rural Communities Act 2006 Section 40, requiring such authorities to not only conserve but also enhance biodiversity when exercising their functions. Public authorities will also be required to publish summary reports of actions taken under Section 40 at least every five years.

The Act provides the legal basis for the creation of Local Nature Recovery Strategies (LNRSs) for England (including specifying their content), and the preparation and publication of species conservation strategies and protected sites strategies.

It also creates a new legal vehicle known as a ‘Conservation Covenant’ which is a voluntary, legally binding private agreement between landowners and responsible bodies (the latter designated by the Secretary of State) which conserve the natural or heritage features of the land, enabling long-term conservation. Conservation Covenants are designed to ‘run with the land’ when it is sold or passed on and are intended to eventually become a primary mechanism for the delivery of Biodiversity Net Gain (BNG).

The Act provides new powers for the Government to amend in future Regulation 9 and Part 6 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the ‘Habitats Regulations’) – but “only if satisfied that the regulations do not reduce the level of environmental protection provided by the Habitats Regulations”.

Several aspects of protected species licencing have also been adjusted by the Act. These include the removal of several inconsistencies between the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended), ensuring that licences issued under the former piece of legislation also apply under the latter, and making it now possible for licences to be issued under Section 16(3) of the Wildlife & Countryside Act 1981 (as amended) for purposes of overriding public interest. The maximum term of a licence that can be issued by Natural England has also been extended from 2 to 5 years.

All biodiversity-related commitments and requirements (as set out in Part 6 of the Act) will come into force upon the adoption of secondary legislation and regulations, following a period of consultation. Timescales are to be confirmed, but this is currently expected to be around late 2023.

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

The Conservation of Habitats and Species Regulations 2017 (as amended) (known as the "Habitats Regulations") were originally drawn up to transpose the European Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the "Habitats Directive") into UK legislation. Following the UK's exit from the European Union, the Habitats Regulations – as amended by Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 – remain in force until such a time as they are superseded by new or updated domestic legislation.

The Habitats Regulations provide for the designation of both Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) in the UK, which previously formed part of the Natura 2000 network of protected areas across Europe and are now part of the UK's "National Sites Network". New National Sites may be designated under the Regulations.

The Regulations also prohibit certain actions relating to European Protected Species (EPS), which include *inter alia* Hazel Dormouse *Muscardinus avellanarius*, Great Crested Newt *Triturus cristatus*, European Otter *Lutra lutra* and all native species of bat.

Further information on SPAs, SACs and European Protected Species is provided in the relevant sub-sections of this Appendix.

Wildlife & Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 is the principal mechanism for the legislative protection of wildlife in Great Britain. Various amendments have occurred since the original enactment. Certain species of bird, animal and plant (including all of the European Protected Species listed above) are afforded protection under Schedules 1, 5 and 8 of the Act. Reference is made to the various Schedules and Parts of this Act (**Table A1.1**) in the section of this Appendix dealing with Legally Protected Species. The Act also contains measures for the protection of the countryside, National Parks, Sites of Special Scientific Interest (SSSIs) and public rights of way as well as preventing the establishment of invasive non-native species that may be detrimental to native wildlife.

Table A1.1: Relevant Schedules of the Wildlife & Countryside Act 1981 (as amended)

Schedule	Protected Species
Schedule 1 Part 1	Protects listed birds through special penalties at all times
Schedule 1 Part 2	Protects listed birds through special penalties during the close season
Schedule 5 Section 9.1 (killing/injuring)	Protects listed animals from intentional killing or injuring
Schedule 5 Section 9.1 (taking)	Protects listed animals from taking
Schedule 5 Section 9.2	Protects listed animals from being possessed or controlled (live or dead)
Schedule 5 Section 9.4a	Protects listed animals from intentional damage or destruction to any structure or place used for shelter or protection
Schedule 5 Section 9.4b	Protects listed animals from intentional disturbance while occupying a structure or place used for shelter or protection
Schedule 5 Section 9.5a	Protects listed animals from being sold, offered for sale or being held or transported for sale either live or dead, whole or part
Schedule 5 Section 9.5b	Protects listed animals from being published or advertised as being for sale
Schedule 8	Protects listed plants from: intentional picking, uprooting or destruction (Section 13 1a); selling, offering for sale, possessing or transporting for the purpose of sale (live or dead, part or derivative) (Section 13 2a); advertising (any of these) for buying or selling (Section 13 2b).
Schedule 9	Prohibits the release of species listed in the Schedule into the wild.
Schedule 9a	Allows environmental authorities to issue species control orders to landowners, obliging them to control/eradicate invasive and/or non-native species.

Further information on legally protected species, designated wildlife sites and invasive non-native species is provided in the relevant sub-sections of this Appendix.

Countryside & Rights of Way Act 2000

Many of the provisions of the Countryside and Rights of Way (CRoW) Act 2000 have been incorporated as amendments into the Wildlife and Countryside Act (1981) and some provisions have now been superseded by later legislation such as The Natural Environment and Rural Communities Act (2006).

The most relevant changes provided by the CRoW Act include the added protection given to SSSIs and other important sites for nature conservation. Importantly, under the Act it became a criminal offence to "recklessly disturb" Schedule 1 nesting birds and species protected under Schedule 5 of the Wildlife and Countryside Act. It also enabled heavier penalties on conviction of wildlife offences.

The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities (NERC) Act 2006 was intended to raise the profile of biodiversity amongst all public authorities (including local authorities, and statutory undertakers) and to make biodiversity an integral part of policy and decision-making processes. The NERC Act also improved wildlife protection by amending the Wildlife and Countryside Act 1981.

Section 40 (S40) of the Act places a 'Biodiversity Duty' on all public bodies to have regard to the conservation of biodiversity when carrying out their normal functions. This includes giving consideration to the restoration and enhancement of species and habitats.

Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of Principal Importance for the conservation of biodiversity in England. This was published in 2007 and is commonly referred to as the "S41 list". Public authorities have a responsibility to give specific consideration to the S41 list when exercising their normal functions. For planning authorities, consideration for Species and Habitats of Principal Importance will be exercised through the planning and development control processes. Further information on Species and Habitats of Principal Importance is provided in the relevant sub-sections of this Appendix.

The Water Environment Regulations 2017

Currently, the overriding legislation relating to freshwater is the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. The Regulations set out objectives to deliver a better water environment based upon achieving a 'good status' for freshwater bodies. The concept of 'good status' is a more rigorous measure of environmental quality than previous measures, which now takes into account not just the chemical status but also the ecological health and the extent of artificial physical modification to rivers.

The Regulations are based upon the concept of protecting water through the management of river basin districts (RBDs) and require the implementation of River Basin Management Plans (RBMPs). Regulation 33 requires public bodies to 'have regard' to the RBMP when making planning decisions, for example through the granting of planning permission with appropriate planning conditions and/or obligations. These could require measures to be implemented (e.g. Sustainable Urban Drainage Systems (SUDS), grey water recycling etc.) or funds to be provided for habitat enhancement schemes.

The Regulations also affect planning policy through the implementation of Programmes of Measures for each river basin district. This involves bringing together funding from various sources and co-ordination of the activities of organisations with an interest in the use of land and water, including developers.

SITES DESIGNATED FOR THE CONSERVATION OF NATURE

There is a hierarchy of nature conservation sites which is based on the level of statutory (legal) protection and the administrative level of importance. Other features of nature conservation interest outside designated sites may also be a material consideration in the determination of planning applications.

Statutory Sites: International

Ramsar Sites, Special Areas of Conservation (SAC) and Special Protection Areas (SPA)

The Conservation of Habitats and Species Regulations 2017 (as amended) provide the primary legal basis for the protection of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) in the UK.

SACs are sites which support internationally important habitats and/or species listed as being of Community Importance in the Annexes of the European Habitats Directive 92/43/EEC. SPAs are sites which support internationally important numbers of bird species listed as being of Community Importance in the Annexes of the European Birds Directive 2009/147/EC. Following the UK's exit from the EU, these now form part of the "National Sites" network rather than the EU Natura 2000 network.

Ramsar sites are wetlands of international importance and although not covered under the Habitats Regulations they are, as a matter of national planning policy, subject to the same strict protection as SACs and SPAs. The majority of terrestrial Ramsar sites in England are also notified as SPAs and/or Sites of Special Scientific Interest (SSSIs).

To avoid confusion with the nationally designated sites described below, EPR refers to SACs and SPAs as 'International sites', given the reasons for their designation.

Any plan or project considered likely to affect an International site (SAC, SPA or Ramsar) must be subject to a Habitats Regulations Assessment (HRA), as set out under Regulation 63 (and Regulation 105 in respect of Land Use Plans) of the Habitats Regulations 2017 (as amended) and the National Planning Policy Framework (NPPF) 2021.

The local authority (or other 'competent authority') carries out the HRA, but the onus is on the developer to provide the necessary information to inform this process, usually in the form of a report.

Under the Habitats Regulations 2017 (as amended), the competent authority must determine in the first instance whether a proposed development is likely to have a significant effect on the SAC/SPA, either alone or in combination with other plans and projects. This stage of the HRA process is known as 'screening'.

If a likely significant effect cannot be precluded (screened out) on the basis of objective information, the competent authority must undertake an 'Appropriate Assessment' to fully assess these implications against the site's conservation objectives. A precautionary approach must be taken with respect to determining whether or not there would be a significant effect, and the appropriate nature conservation body (in most cases Natural England) should be consulted. Except in certain exceptional circumstances prescribed by the Regulations where there are imperative reasons of overriding public interest for allowing a development to proceed, the competent authority may not undertake or authorise the plan or project until they have established (based on the conclusions of the Appropriate Assessment) that the activity will not adversely affect the integrity of the SAC/SPA. This should be the case where no reasonable scientific doubt remains as to the absence of such effects.

Regulation 16A of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 sets out the management objectives of the National Site Network, which can be summarised as follows:

- to maintain or, where appropriate, restore habitats and species listed in Annexes I and II of the Habitats Directive within the UK's territory to a favourable conservation status (FCS); and

- contribute to ensuring, in their area of distribution, the survival and reproduction of wild birds and securing compliance with the overarching aims of the Wild Birds Directive.

The appropriate authorities must also have regard to:

- the importance of protected sites in meeting the above objectives, including breeding, moulting, staging and wintering areas for in the case of migratory bird species;
- their importance for the coherence of the national sites network; and
- the threats of degradation or destruction (including deterioration and disturbance of protected features) on SPAs and SACs.

Government guidance[1] also states that competent authorities have a duty to help protect, conserve and restore the designated features of SACs and SPAs when carrying out their statutory work, including taking decisions that might affect a site. They also have a duty to consider how they can help to prevent the deterioration of the site's habitats from human activity or natural changes, including habitats that support designated species, and prevent significant disturbance of the site's designated species from human activity or natural changes.

Competent authorities include (but are not limited to) local planning authorities, councillors, planning committee members and statutory agencies such as Natural England.

Statutory Sites: National

Nationally important sites include Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs). A development proposal that is likely to affect a nationally important site will be subject to special scrutiny by the local planning authority and Natural England. Certain operations may be permitted. Any potentially damaging operations that could have an adverse effect directly or indirectly on the special interest of the site will not be permitted unless the reasons for the development clearly outweigh the nature conservation and/or geological value of the site itself and the national policy to safeguard such sites, as set out in Section 15 of the National Planning Policy Framework (NPPF).

Sites of Special Scientific Interest

The Wildlife and Countryside Act 1981 (as amended) and the CRoW Act 2000 provide the primary legal basis for the protection of Sites of Special Scientific Interest (SSSIs). These sites have been designated to capture the best examples of England's flora, fauna, geological or physiographical diversity.

Public bodies have a duty to take reasonable steps to conserve and enhance the special features of sites of special scientific interest (SSSIs) when carrying out their statutory duties and giving others permission for works, such as reviewing planning applications.

[1] https://www.gov.uk/guidance/duty-to-protect-conserve-and-restore-european-sites

National Nature Reserves

National Nature Reserves (NNRs) are declared under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981, as amended by the Environmental Protection Act 1990. They are managed to conserve their habitats or to provide special opportunities for scientific study of the habitats communities and species represented within them. NNRs represent the very best parts of England's SSSIs. The majority of NNRs also have European nature conservation designations.

Statutory Sites: Regional/Local

Local Nature Reserves

Local Nature Reserves (LNRs) are declared by local authorities under the National Parks and Access to the Countryside Act 1949 as living green spaces in towns, cities, villages and countryside. They provide opportunities for research and education, or for simply enjoying and having contact with nature. LNRs are usually protected from development through local planning documents which may be supplemented by local by-laws.

Non-Statutory Sites

Local Wildlife Sites

Local planning authorities may designate non-statutory sites for their nature conservation value based on important, distinctive and threatened habitats and species within a national, regional and local context. These sites are not legally protected but are given some protection through the planning system. These sites may be declared as 'County Wildlife Sites', 'Sites of Importance for Nature Conservation' (SINCs), or 'Sites of Nature Conservation Importance' (SNCIs) in local and structure plans. Non-statutory sites are a material consideration when planning applications are being determined. The precise amount of weight to be attached, however, will take into account the position of the site in the hierarchy of sites as set out above. Further information is typically provided in local level planning policy.

Nature Conservation in Areas Outside Designated Sites

Various other features exist outside designated sites that are important for the conservation of nature and which are a material consideration in the planning system.

Habitats of Principal Importance in England

Fifty-six habitat types have been identified as Habitats of Principal Importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006. Although these habitats are not legally protected, the NPPF, Government Circular 06/05, good practice guidance and the NERC Act place a clear responsibility on planning authorities to further the conservation of these habitats. They can be a material consideration in planning decisions, and so developers are advised to take reasonable measures to avoid or mitigate impacts to prevent their net loss and to enhance them where possible. Additional guidance to developers is typically provided in local level planning policy.

The S41 list also includes species as explained below under 'Species of Principal Importance in England'.

Networks of Natural Habitats

Networks of natural habitats link sites of biodiversity importance and provide routes or stepping stones for the migration, dispersal and genetic exchange of species in the wider environment. Examples include rivers with their banks, traditional field boundary systems (such as hedgerows), ponds and small woods. Local planning authorities are encouraged through the NPPF to maintain networks by avoiding or repairing the fragmentation and isolation of natural habitats through planning, policies and development control.

Hedgerows

Hedgerows can act as wildlife corridors that are essential for migration, dispersal and genetic exchange of wild species. Hedgerows that qualify as a Habitat of Principal Importance under S41 of the NERC Act 2006 are a material consideration in the planning system.

Under the Hedgerow Regulations 1997, it is an offence to remove a hedgerow classed as 'important' under the criteria set out by the Regulations without submitting a notice to the Local Planning Authority and waiting for their decision. The Regulations are aimed at countryside hedges and do not apply to hedges around private dwellings or where planning permission has been granted for a project that includes hedge removal. Hedgerows that satisfy wildlife, archaeological, historical or landscape criteria qualify as 'important' under the Regulations. If a hedgerow is not important, the Local Planning Authority may not prevent its removal; however, Local Planning Authorities are required under the Regulations to protect and retain important hedgerows unless satisfied that the circumstances justify their removal.

Tree Preservation Orders

Tree Preservation Orders (TPOs) may be declared under the Town and Country Planning Act 1990 and the Town and Country Planning (Trees) Regulations 1999 to protect individual trees and woodlands from development and cutting. TPOs are primarily put in place to preserve amenity or for landscape conservation reasons. The importance of trees as wildlife habitat may be taken into account, but alone is not sufficient to warrant a TPO. For this reason, TPOs do not fit comfortably under the remit of nature conservation and are generally dealt with by an arboricultural consultant rather than an ecologist. Further guidance on TPOs in relation to development is available from the Department for Communities and Local Government.

Ancient Woodland & Veteran Trees

Ancient woodlands are defined as areas continuously wooded since at least 1600 AD. Even an ancient wood which has been replanted may still have remnants of ancient woodland wildlife and historical features and has potential to be restored. Ancient woodland is not a statutory designation and does not provide legal protection, but local authorities are advised under the NPPF and National Planning Practice Guidance (NPPG) not to grant planning permission for any development that would result in the loss or deterioration of ancient woodland, ancient trees or veteran trees unless there are 'wholly exceptional reasons' and 'a suitable compensation strategy in place'. Local Planning Authorities must take into account Natural England and the Forestry Commission's *Standing Advice for Ancient Woodland and Veteran Trees,* available on the www.gov.uk website.

Surface & Ground Waters

Surface waters (including flowing and standing water) and ground water can directly and indirectly impact upon the conservation of nature.

Guidance on pollution prevention is hosted on the Government's website and focuses on regulatory requirements. This covers topics including the prevention of pollution if you are a business, managing business and commercial waste, oil storage, working on or near water, and managing water on land. Careful planning and the application of these guidelines can help reduce the risk of construction and maintenance work causing pollution to surface and ground waters. Some activities with the potential to impact watercourses or groundwater may require consent under the Water Resources Act 1991.

Water Resources Act (WRA) 1991

Under the WRA there is strict regulation of discharges (including sediment, chemicals, nutrients) to rivers, lakes, estuaries and groundwaters. It also aims to ensure that polluters cover the costs associated with pollution incidents.

SPECIES PROTECTION

Legally Protected Species

The species listed in the following subsections are protected by law in England. When preparing a planning application, it is essential to determine the presence or likely absence of legally protected species and the extent to which they may be affected by a proposed development. This can best be achieved by undertaking surveys early in the planning process. Avoidance and/or mitigation measures may be required to address any predicted impacts upon protected species and may necessitate a licence. The Government website offers standing advice from Natural England and DEFRA which can be applied to planning applications that affect protected species.

Bats

There are 18 species of bat in the UK, seven of which are Species of Principal Importance in England. All bats and bat roosts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Bats are also a European Protected Species protected under the Habitats Regulations 2017 (as amended). It is an offence to:

- Intentionally or deliberately kill, injure or capture bats;
- Intentionally, deliberately or recklessly disturb bats in such a way as to be likely to significantly affect the ability of any significant group of bats to survive, breed, or rear or nurture their young or the local distribution of or abundance of a species of bat;
- Intentionally, or recklessly damage, destroy or obstruct any place used for shelter or protection (i.e. bat roosts) or intentionally or recklessly disturb a bat whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a bat; and
- Possess, sell or transport a bat, or anything derived from it.

Development proposals affecting bats or their roosts require a European Protected Species mitigation licence from Natural England.

Hazel Dormouse

The Hazel Dormouse *Muscardinus avellanarius* is a Species of Principal Importance in England. It is legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is afforded significant further protection as a European Protected Species under the Habitats Regulations 2017 (as amended). Collectively, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Dormice;
- Intentionally, deliberately or recklessly disturb Dormice in such a way as to be likely to significantly affect the ability of any significant group of Dormice to survive, breed, or rear or nurture their young or the local distribution of or abundance of the species;
- Intentionally or recklessly damage, destroy or obstruct access to places used by Dormice for shelter or protection (whether occupied or not) or intentionally or recklessly disturb a Dormouse whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Dormouse;
- Possess or transport a Dormouse (or any part thereof) unless under licence; and
- Sell or exchange Dormice.

Development proposals affecting the Dormouse require a European Protected Species mitigation licence from Natural England.

Reptiles

All four of the widespread British species of reptile, namely the Common Lizard *Zootoca vivipara,* Slow-Worm *Anguis fragilis*, Grass Snake *Natrix helvetica (*previously *Natrix natrix)* and Adder *Vipera berus*, are Species of Principal Importance in England. They are protected under Schedule 5 (Sections 9.1, 9.5a, 9.5b) of the Wildlife & Countryside Act 1981 (as amended) from intentional killing, injury and trade. The habitat of the four widespread reptiles is not legally protected; however the replacement of habitat lost through development may be required through the planning system. Mitigation for these species is not subject to licensing by Natural England but should nonetheless be planned to minimise disturbance and potential project delays.

The Smooth Snake *Coronella austriaca* and the Sand Lizard *Lacerta agilis* are the rarest reptile species in Britain. In addition to the protection that is afforded to the widespread species of reptile listed above, these species are protected further under Schedule 5 (Sections 9.4b and 9.4c) of the Wildlife and Countryside Act 1981 (as amended). They are also European Protected Species protected under the Habitats Regulations 2017 (as amended). This legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Sand Lizards or Smooth Snakes;
- Intentionally, deliberately or recklessly disturb Sand Lizards or Smooth Snakes in such a way as to be likely to significantly affect the ability of any significant group of Sand Lizards or Smooth Snakes to survive, breed, or rear or nurture their young or the local distribution or abundance of either species;
- Intentionally or recklessly damage, destroy or obstruct any place used by Sand Lizards or Smooth Snakes for shelter or protection, or intentionally or recklessly disturb a Sand Lizard or Smooth Snake whilst it is occupying such a place;

- Damage or destroy a breeding site or resting place of a Sand Lizard or Smooth Snake;
- Keep, sell, or exchange Sand Lizards or Smooth Snakes or their eggs; and
- Deliberately take or destroy their eggs.

Development proposals affecting Smooth Snake or Sand Lizard require a European Protected Species mitigation licence from Natural England.

Birds

49 species of bird are listed as Species of Principal Importance in England. All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence, with certain exceptions (e.g. game birds), to intentionally kill, injure or take any wild bird and to take, damage or destroy their nests or eggs.

Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) affords extra protection for certain species and applies harsher penalties for offences. Any intentional or reckless disturbance of a Schedule 1 bird, whilst it is nesting or rearing dependent young, constitutes an offence.

Regulation 10 of the Conservation of Habitats and Species Regulations 2017 (as amended) requires appropriate authorities and conservation bodies, in the exercise of their functions, to take such steps that they consider appropriate in order to secure "*the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat (…)*".

European Badger

The Protection of Badgers Act 1992 offers considerable protection to both Badgers and Badger setts. This legislation was enacted to protect the European Badger *Meles meles* against baiting and not as a means of species recovery as it is common in England. It is an offence to cruelly treat, kill or take Badgers, but it is also illegal to intentionally or recklessly damage or disturb a Badger sett while it indicates signs of current use by a Badger.

The Government website contains information to help developers and their proponents avoid sett disturbance and to identify setts that are in current use. It is important to maintain adequate foraging territory in development proposals affecting Badgers as the destruction or severance of large areas of foraging territory could also be taken to include habitat loss. Licences to disturb Badgers and their setts in respect of development may be issued by Natural England provided provisions are made to minimise disturbance.

Wild Mammals

All wild mammals are protected against cruelty under the Wild Mammals (Protection) Act 1996, which makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

European Eel

The Eels Regulations 2009 (as amended in 2011) aim to combat the population decline of the European eel *Anguilla anguilla* through protection of migration routes and controls on the numbers of eels allowed

to be taken. In order to protect migration routes, any structures which may prevent upstream or downstream migration of eels must be reported to the Environment Agency. Eel passages must be constructed where needed and maintained in a good condition.

Freshwater Fish

The Salmon and Freshwater Fisheries Act 1975 protects freshwater fish, particularly salmon and trout. It prevents the destruction of spawning grounds and the obstruction of migratory passages through the building of weirs, dams etc.

Licences for Development

Licences are required to permit activities prohibited under wildlife legislation, namely the disturbance or capture of protected species or damage to their habitats. Natural England is the licensing authority in England. Licences are only issued for certain purposes, which are set out in the legislation, and only where there is a valid justification. The licences most relevant to development scenarios are discussed below.

European Protected Species Mitigation Licences

A European Protected Species mitigation licence (EPSL) is required from Natural England to undertake any development that is reasonably likely to result in an offence in respect of a European Protected Species protected under Schedule 2 of the Habitats Regulations 2017 (as amended); including *inter alia* all species of bats, Hazel Dormouse, Great Crested Newt and European Otter. Natural England must be satisfied that the following three tests are satisfied before it will issue a licence covering a European Protected Species:

1. The proposal is necessary to preserve public health or public safety, or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
2. There is no satisfactory alternative; and
3. The proposal will have no detrimental effect to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Conservation Licences

In the context of development, conservation licences are normally only relevant to mitigation involving the capture of Water Voles or White-Clawed Crayfish. Conservation licences are granted to permit the trapping and translocation of these species on the condition that the development activity is properly planned and executed and thereby contributes to the conservation of the population of the species.

Badger Licences

Licences to disturb Badgers and their setts in respect of development may be issued by Natural England, provided provisions are made to minimise disturbance.

Species of Principal Importance in England

943 species have been identified as being of Principal Importance for the conservation of biodiversity in England under Section 41 (S41) of the NERC Act 2006. The S41 list includes species found in England

which have been identified as requiring action under the now superseded UK Biodiversity Action Plan 2007 (plus the Hen Harrier). While many of these species may not be legally protected (some are protected under the legislation described above), there is a clear responsibility on local planning authorities to further their conservation. These species can be a material consideration in development control decisions and so developers are advised to take reasonable measures to avoid or mitigate impacts to prevent the net loss of these species, and to enhance their habitats where possible. Additional guidance to developers is typically provided in local level planning policies.

Invasive Non-Native Species

There are a number of species not ordinarily resident in the UK, such as Japanese Knotweed. Those which pose a significant threat, if uncontrolled, to our ecology and economy are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). For an offence to be committed, a species must be released or allowed to escape into the wild. For example, if a plant listed on Schedule 9 is not adequately controlled by a land owner, once they are aware that it is present, and the species is allowed to spread into adjoining areas, then this could constitute an offence.

Japanese Knotweed is also classed as ‘controlled waste’ under the Environment Protection Act 1990 (as amended) and if taken off site it must be disposed of safely at a licensed landfill site. Soil containing rhizome material should also be regarded as contaminated and treated accordingly.

Species Control Orders

A new schedule 9A was inserted into the Wildlife and Countryside Act 1981 (as amended) by Sections 23 to 25 of the Infrastructure Act 2015. This gives environmental authorities (in England the Secretary of State, Environment Agency, Natural England and the Forestry Commission) the power to offer ‘species control agreements’ to landowners in respect of invasive and/or non-native species, such as Japanese Knotweed. If the landowner does not comply with a species control agreement, or refuses to enter into one, the environmental authority may issue a ‘species control order’, requiring the owner to eradicate or control the species, or to allow the environmental authority access to carry out these operations themselves.

If the owner does not comply with the species control order, the maximum penalty if convicted is a fine of up to £40,000 and/or imprisonment for up to 51 weeks. The environmental authority can also recover costs for carrying out the necessary work themselves.

PLANNING POLICY & GUIDANCE

This section set out the main planning policy and government guidance that relates to the conservation of nature at all levels of government.

National Level

National Planning Policy Framework 2023

The National Planning Policy Framework (NPPF) 2023 sets out the Government’s planning policies for England and how these should be applied in local-level policy and decision making. The NPPF has a clear “presumption in favour of sustainable development” (paragraph 11), with economic, social and

environmental objectives. This presumption does not apply where a plan or project has failed the 'appropriate assessment' test under the Habitats Regulations (paragraph 182).

Section 15 of the NPPF provides guidance on conserving and enhancing the natural environment through the planning system, as summarised below.

Firstly, planning policies and decisions should contribute to and enhance the natural and local environment by applying the following key principles:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and
- preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.

Section 15 also requires planning policies and decisions to limit the impact of artificial light pollution on nature conservation.

Secondly, when determining planning applications, local planning authorities should apply the following key principles:

- if significant harm resulting from a development cannot be avoided, adequately mitigated or (as a last resort) compensated for, then planning permission should be refused;
- proposed development that is likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should normally be refused;
- planning permission should normally be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and ancient or veteran trees, unless there are 'wholly exceptional reasons' and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported, while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

In the case of SSSIs and irreplaceable habitats, exceptions may be made if it can be clearly demonstrated that the benefits of the development, in that location, clearly outweigh the costs in terms of loss or adverse impacts.

Section 15 specifies that listed or proposed Ramsar sites, potential European sites, and sites identified or required as compensatory measures for adverse effects on designated/listed or potential/proposed European and Ramsar sites should be given the same protection as designated European sites.

Section 15 includes the following text on air quality:

- Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas;
- Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications; and
- Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.

The NPPF also sets out principles for plan-making, including the allocation of land with the least environmental or amenity value, and taking a strategic approach to maintaining and enhancing networks of habitats and green infrastructure by identifying, mapping and safeguarding components of local wildlife-rich habitats, wider ecological networks, wildlife corridors and stepping stones, and those areas identified by national and local partnerships for habitat management, enhancement, restoration or creation.

Government Circular 06/05: Biodiversity and Geological Conservation

The Government produced Circular 06/05 to provide guidance on the application of the law to the conservation of nature. Although the document is in the process of being updated, Paragraphs 98 and 99 remain relevant as they set out the following principles and obligations:

- The presence of protected species is a material consideration when determining a development proposal;
- Local authorities should consult with Natural England before granting permission, and consider imposing planning conditions or obligations to secure the long-term protection of the species;
- The presence of protected species, and the extent to which thy may be affected by the proposed development, must be established before permission is granted;
- Given the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development.

MHCLG Planning Practice Guidance

Revised and updated Planning Practice Guidance (PPG) was launched by the Department for Communities and Local Government (now the Ministry of Housing, Communities and Local Government, MHCLG) as a web-based tool in March 2014 to accompany the NPPF. The webpages are set out in a Q&A format. The PPG consolidates and supersedes existing guidance on a range of planning-related topics, clarifies some of the statements made in the NPPF, and provides links to relevant legislation and other sources of advice.

The Guidance outlines a number of important principles in relation to nature conservation and biodiversity, including the need to integrate biodiversity into all stages of the planning process and to consider opportunities to enhance biodiversity and contribute to the Government's commitments and targets set out in *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*.

The guidance also requires that "an ecological survey will be necessary in advance of a planning application if the type and location of development are such that the impact on biodiversity may be significant and existing information is lacking or inadequate", and recommends that "local planning authorities should only require ecological surveys where clearly justified, for example if they consider there is a reasonable likelihood of a protected species being present and affected by development."

Other guidance

In addition to the Planning Practice Guidance, various other forms of guidance and standards are available in relation to biodiversity and the development process. Of particular note is *British Standard BS42020:2013 Biodiversity – Code of practice for planning and development*, published in August 2013, which replaces *Planning to Halt the Loss of Biodiversity (PAS 2010): Biodiversity conservation standards for planning in the United Kingdom*.

This document is designed to complement the NPPF and is aimed at organisations concerned with ecological issues throughout the planning process, including local authorities, developers, planners and ecological consultants. It sets out step-by-step recommendations on how to incorporate biodiversity considerations at all stages of the planning process, with a focus on the provision of consistent, high quality and appropriate ecological information, effective decision making, and high standards of professional conduct and competence.

Regional Level

Regional plans (such as the South East Plan Regional Spatial Strategy) have been revoked, but some specific policies have been saved. The only policy saved from the South East Plan is Policy NRM6, which relates to the Thames Basin Heaths Special Protection Area (TBH SPA).

Local Level

Guildford Borough Council: The Local Plan: Strategy and Sites (2015 - 2034)

POLICY P5: Thames Basin Heaths Special Protection Area

This policy states:

1. Permission will only be granted for development proposals where it can be demonstrated that doing so would not give rise to adverse effects on the ecological integrity of the Thames Basin Heaths Special Protection Area (SPA), whether alone or in combination with other development. Where one or more adverse effects on the integrity of the SPA will arise, measures to avoid and mitigate these effects must be delivered and secured in perpetuity. These measures are unlikely to be acceptable unless agreed with Natural England in accordance with South East Plan policy NRM6.

2. The following principles apply:

a) There is an “exclusion zone” set at 400m linear distance from the SPA boundary. Permission will not be granted for development that results in a net increase in residential units within this zone. Proposals for other types of development within this zone must undertake Habitats Regulations Assessment to demonstrate that they will not harm the integrity of the SPA.
b) There is a “zone of influence” between 400m and 5km linear distance from the SPA boundary. Where net new residential development is proposed within the zone of influence, avoidance and mitigation measures must be delivered prior to occupation of new dwellings and in perpetuity. Measures must be based on a combination of 1) the provision, improvement and/or maintenance of Suitable Alternative Natural Greenspace (SANG) and 2) Strategic Access Management and Monitoring (SAMM).
c) Residential development of over 50 net new dwellings that falls between five and seven kilometres from the SPA may be required to provide avoidance and mitigation measures. This will be assessed on a case-by-case basis and in consultation with Natural England.

SANGs

3. The following principles apply to the provision of SANG:

   a) A minimum of 8 hectares of SANG land (after discounting to account for current access and capacity) should be provided per 1,000 new occupants.
   b) Developments must fall within the catchment of the SANG that provides avoidance, except developments of fewer than 10 net new residential units.
   c) The Council will collect developer contributions towards avoidance and mitigation measures, including SANG (unless bespoke SANG is provided) and SAMM.
   d) Developments may secure or provide bespoke SANG. Proposals for new SANGs are unlikely to be acceptable unless agreed by Natural England. Large developments may be required to provide bespoke SANG.

4. Where further evidence demonstrates that the integrity of the SPA can be protected using different distance thresholds or with alternative measures (including standards of SANG provision different to those set out in this policy), the Council will agree these in consultation with Natural England.

POLICY ID4: Green and blue infrastructure Biodiversity

This policy states that:

1. The Council will maintain, conserve and enhance biodiversity and will seek opportunities for habitat restoration and creation, particularly within and adjacent to Biodiversity Opportunity Areas (BOAs). The Council will produce a Green and Blue Infrastructure Supplementary Planning Document (SPD) setting out how this approach will be implemented.

2. New development should aim to deliver gains in biodiversity where appropriate. Where proposals fall within or adjacent to a BOA, biodiversity measures should support that BOA’s objectives. The SPD will set out guidance on how this can be achieved.

3. The designated sites in the following hierarchy are shown on the Policies Map or as subsequently updated: (a) European sites: Special Protection Areas (SPA) and Special Areas of Conservation (SAC) (b) National sites: Sites of Special Scientific Interest (SSSI) (c) Local sites: Sites of Nature Conservation Importance (SNCI) and Local Nature Reserves.

4. Permission will not be granted for development proposals unless it can be demonstrated that doing so would not give rise to adverse effects on the integrity of European sites, whether alone or in combination with other development. Any development with a potential impact on SPA or SAC sites will be subject to a Habitats Regulations Assessment.

5. Permission will only be granted for development proposals within or adjacent to national sites where it can be demonstrated that doing so would not be harmful to the nature conservation interests of the site and its function as an ecological unit.

6. Permission will not be granted for proposals that are likely to materially harm the nature conservation interests of local sites unless clear justification is provided that the need for development clearly outweighs the impact on biodiversity. Where this test is met, every effort must be made to reduce the harm to the site through avoidance and mitigation measures.

Guildford local plan: Development Management Policies

Policy P6: Protecting Important Habitats and Species

This policy states that:

1. Development proposals for sites that contain or are adjacent to irreplaceable habitats, priority habitats, habitats hosting priority species, sites designated for their biodiversity value and all aquatic habitats are required to preserve the relevant ecological features through the application of the mitigation hierarchy, and to deliver enhancements to the ecological features in line with Policy P7. The habitats should be protected by appropriate buffers and, if necessary, barriers in order to prevent adverse impacts, including those resulting from recreational use.

Irreplaceable habitats

2. Irreplaceable habitats will be protected. Development proposals that result in the loss, damage or deterioration of irreplaceable habitats will be refused, unless there are wholly exceptional reasons and the exceptional benefits of the development proposal outweigh the loss of the habitats. Proposals for compensation will not form part of this assessment. However, if wholly exceptional reasons have been demonstrated, a suitable compensation strategy to address the level of harm predicted will be required that delivers appropriate and proportionate compensation in terms of quality and quantity. Proposals for compensation will be additional to other requirements relating to biodiversity, including biodiversity net gain requirements.

3. A habitat will be considered to be irreplaceable if it meets the definition in the NPPF glossary or guidance issued by the Surrey Nature Partnership, or if it is identified as irreplaceable in the Local Nature Recovery Strategy, or it is on land identified in an established inventory, such as the Revised Ancient Woodland Inventory (RAWI).

   Ancient woodland and significant trees

4. Where ancient woodland falls within or adjacent to a development site, the following measures are required.

    a. The submission of information setting out the location of all significant ancient or veteran trees (a BS5837 Survey).

b. An appropriate buffer between new development and the ancient woodland of a minimum of 15 metres or a greater distance if specified by national policy.

c. A clear separation between the woodland and the rest of the development, delineated by a physical feature such as a wildlife permeable barrier, a cycle lane, path or lightly trafficked road.

d. Site design that discourages harmful activities such as the use of the woodland as a cut-through where well-used paths do not currently exist.

5. Development proposals for sites that contain significant trees, including ancient and veteran trees and ancient woodland, are expected to incorporate the trees and their root structures and understorey in undeveloped land within the public realm, and to provide green linkages between them.

Priority species and habitats

6. Development proposals are required to protect and enhance priority species and habitats. They include:

    a. Species and Habitats of Principal Importance for Conservation (of biological diversity in England);

    b. species and habitats identified as priorities in the Local Nature Recovery Strategy and strategies produced by Natural England and the Surrey Nature Partnership;

    c. wildlife corridors and stepping-stones as defined by the NPPF or identified in the Local Nature Recovery Strategy, in Development Plan Documents, by Natural England, in Supplementary Planning Documents and in Surrey Nature Partnership documents; and

    d. compensatory habitat sites and biodiversity net gain sites.

Policy P7: Biodiversity in New Developments

General principles

1. Development proposals, including those exempt from minimum biodiversity net gain standards, are required to seek maximum biodiversity gain on site balanced with delivering other planning priorities and to follow the mitigation hierarchy.

2. Development proposals within or adjacent to a Biodiversity Opportunity Area (BOA) are required to:

    a. contribute towards the achievement of the objectives of the BOA as set out in the relevant BOA policy statement (and its successor revision documents);

    b. protect and enhance designated and priority habitats and species within the BOA; and

    c. improve habitat connectivity across and/or into the BOA.

3. In addition to the BOAs, biodiversity measures are required to align with and deliver the Local Nature Recovery Strategy (to be prepared) and take account of other national, regional and local biodiversity strategies.

4. Major development proposals are required to set out plans for long term management and maintenance of on-site biodiversity.

Planting schemes, landscaping and water management

5. Planting and landscaping schemes, open spaces, Sustainable Drainage Systems (SuDS) and Natural Flood Management measures are expected to incorporate species, habitats and management regimes that provide best biodiversity benefit as set out in BOA policy statements and other strategies.

6. Tree canopies are expected to be retained and new tree planting is expected to focus on the creation of new connected tree canopies and/or the extension of existing canopies, unless doing so would adversely impact on sensitive species or habitats. Tree planting schemes are expected to provide resilience in terms of climate, disease and ageing, incorporating large species with long lifespans where opportunities arise.

7. Planting schemes are expected to use UK sourced, native species, unless imported strains of native species would offer greater resilience and are free from disease.

Measures on building structures

8. Development proposals are required to include appropriate features in or on building structures that support nature, will last for the lifetime of the development and will cater for appropriate species and habitats.

Site design

9. Development proposals are expected to be designed to create areas of new habitat and provide appropriate links and corridors between new and existing habitats, avoiding and reversing fragmentation and species isolation. Development sites and built features are expected to be permeable for wildlife.

10. In areas where invasive species are present, site design should not facilitate their spread. Where invasive species are present on development sites, they should be eradicated, or controlled where eradication is not possible. Planting schemes must not include invasive plants.

11. Major development proposals are expected, and minor development proposals are encouraged, to deliver measures that promote a sense of community ownership of green spaces and habitats.

Biodiversity Net Gain

12. Qualifying development proposals submitted after the national scheme comes into effect are required to achieve a biodiversity net gain of at least 20 per cent, or the advised national minimum amount, whichever is greater, measured using the national biodiversity net gain calculation methodology.

13. Where previously developed land is exempted from biodiversity net gain under the relevant regulations, a minimum net gain will not be required unless the site supports at least one protected or priority species population or habitat, or an assemblage of species with an otherwise demonstrably high biodiversity value. Where these are present, a measurable 20 per cent net gain for relevant habitats will be required.

14. Biodiversity gains are required to be delivered in a manner that is consistent with the biodiversity policies in this plan and LPSS 2019 Policy ID4: Green and Blue Infrastructure so that measures are focused on local priorities and will provide the best biodiversity value.

15. New habitats and habitat improvements that contribute towards the achievement of biodiversity net gain are required to be secured and maintained for at least 30 years, or a period of time set out in national policy or legislation if this is greater.

16. Where the applicant is unable to provide the gains on-site, provide the gains off-site or fund gains off-site on third-party sites, a justified and proportionate financial contribution to fund off-site measures will be secured.

17. Development proposals for the creation of biodiversity sites will be supported where these are well located and will be appropriately managed in order to align with local, regional and national strategies and provide best biodiversity value.

Policy P10: Water Quality, Waterbodies and Riparian Corridors

General principles

1. Development proposals that would result in a deterioration in the chemical or ecological status/potential of a waterbody, or prevent improvements to the chemical or ecological status/potential, will not be permitted.

2. Development proposals that contain or are in the vicinity of a waterbody are required to demonstrate that they have explored opportunities to improve its chemical and ecological status/potential. Where a waterbody is covered by the Water Environment Regulations, proposals are required to align with the objectives of the Thames river basin district River Basin Management Plan.

3. Non-residential developments, excluding essential infrastructure, that would have a very high water usage are expected to include water collection and storage measures sufficient to avoid, or significantly reduce if avoidance is not possible, abstraction from existing surface-level and groundwater resources or recourse to the public water supply.

   Development affecting watercourses

4. Development proposals are required to explore opportunities to improve and/or restore the flow and functioning of a watercourse.

5. Development proposals are required to retain or reinstate an undeveloped buffer zone on both sides of a main river measuring a minimum of 10 metres from the top of the riverbank that is supported by a working methods statement detailing how the buffer zone will be protected during construction, and a Landscape and Ecological Management Plan detailing how it will be

enhanced in the long-term. For ordinary watercourses, an appropriate buffer is expected that is sufficient to protect and enhance the biodiversity and amenity value of the watercourse.

6. Development proposals that include the culverting of watercourses, hard bank revetment or which prevent future opportunities for de-culverting and naturalisation of watercourse banks will not be permitted. Development proposals are expected to return banks to a natural state.

7. Where barriers to fish movement (e.g. weirs) are present in a watercourse, proposals are expected to include the removal of that barrier, or measures to allow for the natural movement of fish within the watercourse where removal is not feasible.

8. Development proposals are required to identify opportunities for Natural Flood Management, creating wetland features and reconnecting rivers with their floodplains in order to restore natural processes, enhance biodiversity and help manage flood risk.

   Ground and surface drinking water

9. Development proposals within Source Protection Zones and Drinking Water Protected Areas are required to demonstrate that they have had regard to all Environment Agency position statements that are relevant to the proposals.

Policy D12: Light Impacts and Dark Skies

1. Development proposals are required to be designed to minimise obtrusive light (light pollution) and the adverse impacts of obtrusive light on sensitive receptors. Consideration must be given to potential adverse impacts on privacy, amenity, and the natural environment, including wildlife, sensitive habitats, and sites designated for their nature conservation value.

2. Proposals for light-generating development, or proposals for light-sensitive development that are likely to be affected by existing artificial lighting, are required to submit a Light Impact Assessment as part of the planning application. Light Impact Assessments are required to clearly detail any potential significant adverse impacts that artificial lighting may have on privacy, amenity, and the natural environment, including wildlife, sensitive habitats and sites designated for their nature conservation value

3. Where potential significant adverse impacts from artificial lighting have been identified, Light Impact Assessments are required to detail the appropriate avoidance and mitigation measures that will be implemented to prevent, avoid and/or mitigate those impacts.

4. Proposals for light-generating development are required to prevent and/or avoid unacceptable light spillage into natural terrestrial and aquatic habitats, or their buffer zones.

5. Where there will be an unacceptable adverse impact on sensitive receptors which cannot be avoided and/or adequately mitigated, the planning application will be refused.

   Dark Skies

6. In more remote locations of the Surrey Hills AONB, with darker skies, development proposals that cause light pollution will be resisted.

Policy D17: Renewable and Low Carbon Energy Generation and Storage

1. Proposals for renewable and low carbon energy generation and energy storage development, covering both power and heat, will be supported, with strong support for community-led initiatives.

2. Where such development is proposed in the Green Belt, climate change mitigation and other benefits will be taken into account when considering whether very special circumstances exist.

3. Proposals are required to demonstrate that the design of the scheme has sought to minimise visual impacts and that the management of the site will maximise opportunities for biodiversity while avoiding practices that are harmful to biodiversity.

4. For temporary permissions, provision must be made for the decommissioning of the infrastructure and associated works and the full restoration of the site once operation has ceased.

BIODIVERSITY PLANS AND STRATEGIES

The NERC Act 2006 places a duty on local authorities to have due regard to biodiversity when exercising their normal functions, and the NPPF requires planning policies to "promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species, and identify and pursue opportunities for securing measureable net gains for biodiversity" (paragraph 174). These targets are set out in a range of biodiversity plans and strategies from the international through to the district level.

An overview of the key biodiversity plans and strategies in the UK, and their implications for development, are set out below.

National level

The *UK Biodiversity Action Plan 2007* (UK BAP) has been superseded by the *UK Post-2010 Biodiversity Framewo*rk and individual national biodiversity strategies. The UK Framework sets out the overarching vision, strategic goals and priority activities for the UK's work towards international biodiversity targets (known as the 'Aichi Targets'), as agreed by 192 parties at the UN Convention on Biological Diversity in 2010.

In England, *Biodiversity 2020: A strategy for England's wildlife and ecosystem services* is the national biodiversity strategy, which has the stated mission "(…) to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people." In order to focus activity and assess performance in achieving this mission, Biodiversity 2020 sets out objectives relating to terrestrial and marine habitats and ecosystems, species and people.

Local level

While BAPs at the national level have now been superseded by *the UK Post-2010 Biodiversity Framework* and *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*, many county and district level BAPs still exist.

Biodiversity Net Gain

The Environment Act 2021 makes provisions for 10% biodiversity gain, as measured by a metric (currently published by Defra), to become a condition of planning permission in England. This will come into force upon the adoption of secondary legislation and regulations. Timescales are to be confirmed, but this is currently expected to be around late 2023. A publicly accessible register of Biodiversity Gain Sites will be set up during this time, and the Secretary of State will publish and consult on the biodiversity metric to be used, as well as on the wording of the secondary legislation itself.

The Act specifies that biodiversity gain can be delivered on and/or offsite, and establishes the basis for purchasing off-site credits to meet the 10% obligation if required. Land used to deliver biodiversity gain must be maintained for at least 30 years, and planning conditions will require a biodiversity gain plan to be submitted to and approved by the planning authority prior to commencement of development.

It also clarifies that the baseline biodiversity value of a site should be taken from the date on which planning consent is granted, unless otherwise agreed with the LPA (but not before the secondary legislation comes into force). This excludes any activities undertaken without planning permission (or other relevant permissions) after 30 January 2020 which have had the effect of reducing the biodiversity value of the land. In such cases, “the pre-development biodiversity value is to be taken to be its biodiversity value immediately before the carrying on of the activities.”

Biodiversity net gain (BNG) is already enshrined in the key principles of the NPPF, and some local planning policies already include a requirement to deliver a minimum net gain figure (typically 10% or 20%).

Enhancement measures may not just benefit biodiversity. There are many functional benefits to be won from strategically planned green infrastructure projects such as semi-natural urban green spaces, sustainable drainage schemes (SUDS) and green roofs.

Appendix 3
Suggested Seed Mixes

Table A4.1 Emorsgate EM4 – Meadow Mixture for Clay Soils

%	Latin name	Common name
Wild Flowers		
0.2	*Achillea millefolium*	Yarrow
1	*Betonica officinalis - (Stachys officinalis)*	Betony
3.7	*Centaurea nigra*	Common Knapweed
1	*Filipendula ulmaria*	Meadowsweet
3.5	*Galium verum*	Lady's Bedstraw
0.5	*Lathyrus pratensis*	Meadow Vetchling
0.3	*Leontodon hispidus*	Rough Hawkbit
0.5	*Leucanthemum vulgare*	Oxeye Daisy
0.4	*Lotus corniculatus*	Birdsfoot Trefoil
1.2	*Plantago lanceolata*	Ribwort Plantain
1	*Primula veris*	Cowslip
2	*Prunella vulgaris*	Selfheal
1.5	*Ranunculus acris*	Meadow Buttercup
2	*Rhinanthus minor*	Yellow Rattle
0.5	*Silaum silaus*	Pepper Saxifrage
0.5	*Silene flos-cuculi - (Lychnis flos-cuculi)*	Ragged Robin
0.1	*Taraxacum officinale*	Dandelion
0.1	*Trifolium pratense*	Wild Red Clover
Grasses		
10	*Agrostis capillaris*	Common Bent
2	*Alopecurus pratensis*	Meadow Foxtail (w)
2	*Anthoxanthum odoratum*	Sweet Vernal-grass (w)
1	*Briza media*	Quaking Grass (w)
36	*Cynosurus cristatus*	Crested Dogstail
24	*Festuca rubra*	Slender-creeping Red-fescue
1	*Hordeum secalinum*	Meadow Barley (w)
4	*Phleum bertolonii*	Smaller Cat's-tail

Table A4.2 Emorsgate EM7 – Meadow Mix for Sandy Soils

%	Latin name	Common name
Wild Flowers		
0.5	*Achillea millefolium*	Yarrow
3	*Centaurea nigra*	Common Knapweed

%	Latin name	Common name
1.5	*Daucus carota*	Wild Carrot
2	*Echium vulgare*	Viper's Bugloss
2.5	*Galium verum*	Lady's Bedstraw
0.5	*Leucanthemum vulgare*	Oxeye Daisy
0.2	*Linaria vulgaris*	Common Toadflax
0.5	*Lotus corniculatus*	Birdsfoot Trefoil
1	*Malva moschata*	Musk Mallow
0.5	*Plantago media*	Hoary Plantain
1	*Primula veris*	Cowslip
1.5	*Prunella vulgaris*	Selfheal
1	*Ranunculus acris*	Meadow Buttercup
2	*Ranunculus bulbosus*	Bulbous Buttercup
1.5	*Rumex acetosa*	Common Sorrel
0.5	*Rumex acetosella*	Sheep's Sorrel
0.2	*Scorzoneroides autumnalis - (Leontodon autumnalis)*	Autumn Hawkbit
0.1	*Trifolium pratense*	Wild Red Clover
Grasses		
10	*Agrostis capillaris*	Common Bent
4	*Agrostis vinealis*	Brown Bent (w)
4	*Anthoxanthum odoratum*	Sweet Vernal-grass (w)
24	*Cynosurus cristatus*	Crested Dogstail
2	*Deschampsia flexuosa - (Avenella flexuosa)*	Wavy Hair-grass (w)
16	*Festuca ovina*	Sheep's Fescue
12	*Festuca rubra*	Slender-creeping Red-fescue
3	*Koeleria macrantha*	Crested Hair-grass (w)
5	*Phleum bertolonii*	Smaller Cat's-tail (w)

Table A4.3 Emorsgate EP1 – Pond Edge Mixture

%	Latin name	Common name
Wild Flowers		
0.5	*Achillea ptarmica*	Sneezewort
2	*Angelica sylvestris*	Wild Angelica
0.2	*Caltha palustris*	Marsh Marigold
1.5	*Centaurea nigra*	Common Knapweed
1	*Eupatorium cannabinum*	Hemp Agrimony
3	*Filipendula ulmaria*	Meadowsweet
0.5	*Geum rivale*	Water Avens
0.5	*Hypericum tetrapterum*	Square-stalked St John's Wort
4	*Iris pseudacorus*	Yellow Iris
1	*Lotus pedunculatus*	Greater Birdsfoot Trefoil
0.8	*Lycopus europaeus*	Gypsywort

%	Latin name	Common name
0.6	*Lythrum salicaria*	Purple Loosestrife
0.1	*Mentha aquatica*	Water Mint
0.1	*Pulicaria dysenterica*	Common Fleabane
2	*Ranunculus acris*	Meadow Buttercup
0.6	*Sanguisorba officinalis*	Great Burnet
0.8	*Silene flos-cuculi - (Lychnis flos-cuculi)*	Ragged Robin
0.5	*Succisa pratensis*	Devil's-bit Scabious
0.3	*Vicia cracca*	Tufted Vetch
Grasses		
10	*Agrostis capillaris*	Common Bent
2	*Alopecurus pratensis*	Meadow Foxtail (w)
2	*Anthoxanthum odoratum*	Sweet Vernal-grass (w)
2	*Briza media*	Quaking Grass (w)
32	*Cynosurus cristatus*	Crested Dogstail
1	*Deschampsia cespitosa*	Tufted Hair-grass (w)
24	*Festuca rubra*	Slender-creeping Red-fescue
1	*Hordeum secalinum*	Meadow Barley (w)
6	*Schedonorus pratensis - (Festuca pratensis)*	Meadow Fescue (w)

Table A4.4 Emorsgate EW1 – Woodland Mixture

%	Latin name	Common name
Wild Flowers		
1	*Alliaria petiolata*	Garlic Mustard
0.5	*Anthriscus sylvestris*	Cow Parsley
2.0	*Carex divulsa ssp divulsa*	Grey Sedge
0.1	*Carex pendula*	Pendulous Sedge
4.0	*Chaerophyllum temulum*	Rough Chervil
1	*Digitalis purpurea*	Foxglove
1	*Filipendula ulmaria*	Meadowsweet
0.5	*Galium album – (Galium mollugo)*	Hedge Bedstraw
2	*Geranium pyreniacum*	Hedge Crane's-bill
0.8	*Geum urbanum*	Wood Avens
1	*Hyacinthoides non-scripta*	Bluebell
5	*Silene dioica*	Red Campion
1	*Silene flos-cuculi*	Ragged Robin
Grasses		
1	*Agrostis capillaris*	Common Bent
1	*Brachypodium sylvaticum*	False Brome
2	*Anthoxanthum odoratum*	Sweet Vernal-grass (w)
50	*Cynosurus cristatus*	Crested Dogstail
2	*Deschampsia cespitosa*	Tufted Hair-grass (w)
20	*Festuca rubra*	Slender-creeping Red-fescue

%	Latin name	Common name
4	*Poa nemoralis*	Wood Meadow grass

Appendix 4
Summary of Species Mitigation Measures – Peach Ecology 2017

Below is a summary of species mitigation measures taken from the Ecological Assessment by Peach Ecology in 2017 (Peach, 2017).

Bats

A European Protected Species licence will need to be applied for and granted prior to any work on the Main Bungalow and Garage as both are known to support bat roosts. This can only be applied for when planning permission has been granted.

Outline mitigation:

- A new bat roost to mitigate for the loss of the existing building is proposed in the attic of a car barn measuring approximately 5m x 10m with an internal ridge of at least 2m, well in excess of the minimum requirements for the species of bat. This will have appropriate access points on the roof and will be constructed using bitumen roofing felt under the tiles. The attic will have minimal trussing and baffles will be used along the ridge to create micro-environments for the bats.

- The new permanent bat roost needs to be in place prior to the demolition of the existing roost so bats have time to find it and by the 1st May when their maternity season begins. It is proposed that the existing garage will be retained as a temporary bat roosting area while the new mitigation is completed.

- Two 1FF Schwegler bat boxes and two 2FN Schwegler bat boxes will be erected on a retained tree near to the existing building as brown long-eared bats are known to use boxes for their maternity roosts. These boxes should be retained indefinitely and could be checked as part of annual management – if any bats are found a licensed ecologist would need to be contacted.

- The roof tiles and features will be removed under ecological supervision in the period September - March in suitable weather and any bats found will be moved to the bat boxes provided. The cavity walls will be left exposed before the remaining building is demolished so it is certain that bats are not roosting there. Other bat roosting features will be removed in a considerate manner by hand.

- Bitumen type 1F felt will be used on the garages and at least one will be created with bat roosting potential for brown long-eared bats. This could be with a separate attic or as a feeding roost with direct access to the inside of a ridged roof and the timbers.

- 10 bat roosting crevice features eg. Birdbrickhouse bat boxes, will be built into the fabric of new dwellings.

- New external lighting should be avoided across the site unless it is absolutely necessary. A lighting plan will need to be provided. Where lighting is necessary it should be pointed down to

where it is needed away from vegetation at the boundaries, the woodland, and away from any bat roosting features.

- A detailed bat inspection by a licensed ecologist will need to be undertaken prior to any work undertaken on trees.

Reptiles

Reptiles present in areas impacted by the proposals will need to be translocated out of harms way to a receptor area.

Outline mitigation:

- A suitable area of the site will need to be fenced off outside of the construction zone in an area that can be landscaped and managed for reptiles in future, potential areas include the woodland edge and areas close to the southern and northern boundaries. These may require some management prior to any translocation so they are in suitable condition and some of the existing log piles on site could be moved here to enhance the areas. Translocating reptiles off site can also be considered. A scheme to the west is translocating reptiles to a piece of grassland nearby and it is likely that these will be part of the same population of reptiles that are present at Streamside.

- Reptile fencing will be erected around areas with reptile interest excluding any retained trees, roots, hedgerow and the receptor area. Erection of the reptile fence will be done under ecological supervision to ensure reptiles are not harmed. Additional shrub and tree removal may need to take place under ecological supervision to aid fence erection.

- The reptile fencing will be constructed from polythene or similar suitable material dug 150mm into the ground and extending at least 600mm above ground, and supported by posts. No gaps will be present that would allow the movement of reptiles through it. The road can act as a reptile boundary along the eastern boundary as long as the reptile fence can be extended close to the road edge, if this is not possible then the site will need to be completely fenced.

- The reptile fence will be folded over away from the development site and stapled to hold the fold in place as a further measure to restrict reptile passage.

- The fence is to remain in place during the entire construction period.

- 100 refugia will be laid out over the site within the reptile fence to assist in the reptile translocation and the translocation trapping exercise will take place over at least 30 days until there are at least 5 consecutive days with no trapping results or until the numbers are sufficiently low to indicate that the majority of animals have been moved. All reptiles will be moved to the receptor site.

- Any amphibians or other notable species can be moved to the exterior of the reptile fence.

- The reptile translocation can only take place in March – October/early November in suitable weather.

- After the translocation is complete a ‘destructive search’ will take place using a digger to move log piles and check through all remaining vegetation and material on site where reptiles may

be concealed. Bracken and other vegetation may need to be cut to manageable levels prior to the destructive search to make finding reptiles easier – the ecologist will decide on when this can take place and the removal will be done over different phases (cut to approximately 100mm on the first cut then to ground level after). The pile of logs and other brash and material on site will be carefully dismantled at this stage. Results of the reptile translocation will be sent to the local authority.

- New native hedgerow and other landscaping suitable for reptiles will be undertaken to benefit any remaining reptiles in the local area. New fencing at the site boundaries and between gardens will not exclude movement of reptiles and amphibians at ground level. 5.6 10 new insect boxes will be included in new gardens.

Wildlife boxes

- 10 new insect boxes will be included in new gardens.

Stream Management

- The stream would benefit from having more light ingress and reducing the gradient of the sides in some sections so that more plants can grow, increasing the value of the habitat to wildlife. The removal of the pool house will allow more light in along with the removal of some of the vegetation on the southern side.

- The stream should be managed appropriately in the future by digging and clearing no more than half out every other year, with different sections cleared out in consecutive years unless necessary.

Landscaping

- A range of native bulbs (daffodils, bluebells, snowdrops etc) will be planted at the bases of new and existing hedgerows and within the woodland as compensation for the loss of diversity, these will be planted at a density of 10-20 per m_2 in hedgerow boundary areas.

- At least 24 new trees should be planted within gardens to mitigate for the loss of trees.

- Hedgerows especially at the boundaries should be retained and hedge laying techniques used to incorporate them into new hedgerows rather than completely clearing the habitat and starting again, this is most important to the south, east and west boundaries. New hedge trees and shrubs should be native, incorporating at least 8 different species into any mix with a variety of berries.

- New boundary hedge and tree planting should take place to make a continuous wildlife corridor around the site with gaps filled with native hedgerow species.

- Logs from any tree removal can be used to create log piles discretely positioned in vegetation at the site boundaries, this will be done under ecological supervision. Some of these logs should be dug directly into the ground in a way that is suitable for stag beetles.

- It is recommended that the new landscaping is enhanced for biodiversity wherever possible using the following methods:

- Boundary hedgerows will have a mix of native species with some evergreen species included.
- Wildflower seeding and appropriate management will be used in areas of green space.

Fencing

- Any new boundary or garden fencing will allow the movement of hedgehogs, reptiles and insects at ground level by leaving out barge boards or leaving gaps at least 100mm wide by 100mm high between any neighbouring gardens.

- Appropriate tree fencing will need to be erected prior to construction to protect any retained trees. All construction works taking place in the vicinity of retained vegetation, and particularly those close to existing buildings, should conform to British Standard 5837:2005 Trees In Relation to Construction. A construction management plan will need to be set out with these protected areas and features clearly identified.

- Post and rail fencing or similar should be used to segment off the residential curtilage from the woodland edge and the woodland to secure and protect these features in the long term.

Birds

- Vegetation removal and building demolition will need to take place outside of the bird nesting which runs from 1st March – 31st August inclusive to ensure nesting birds are not harmed. Alternatively this can be done under ecological supervision.

- 10 bird boxes will be erected in the woodland and these will include a mix of: 2GR Schwegler Nest Box; 2H Schwegler Robin Box; 1N Schwegler Deep Nest Box; and 3S Schwegler Starling Nest Box

- 5 swift boxes will be erected on the exterior of houses or built into fabric.

- A new car port is proposed and it is recommended that this is maintained open with direct bat and bird flight access so that long-eared bats and nesting swallows can use this in future.

Pollution prevention and drainage

- It is important that the proposals follow appropriate pollution prevention guidelines (PPG 6) and drainage guidelines (Defra guidelines for Sustainable Urban Drainage) to protect watercourses, groundwater and other habitats connected hydrologically to the site.

Badgers

- The site will need to be inspected prior to any clearance or development/construction works to review the impact on badgers and their setts. If an active sett is present then Natural England will need to be consulted on the need for a badger licence once planning permission has been granted. Licences to exclude badgers and to close down or destroy a sett are only issued between 1 July and 30 November, other than in exceptional circumstances.

- Until the badgers have moved off site and their sett closed down works should be restricted in the vicinity involving any heavy machinery or chainsaws to prevent disturbance or collapsing of setts and tunnels.

Management Plan and Woodland Protection

- A construction management plan will need to be set out prior to construction and prior to any further site clearance works with impacted areas clearly set out and areas of the site used for storage and access. This will set out a timetable of works including when landscaping and reptile translocations will take place.

- The retained area of woodland should be protected in future from future loss and development. Transferring ownership of the woodland over to the new residents should be considered so they have some say in its future protection. A management plan for the woodland will be agreed as a condition of planning and a timetable of works will be agreed as a pre-commencement condition. Management measures include:

    - Retaining existing tree stumps where possible so they can rot down in situ.

    - Retention of standing and lying deadwood unless this has health and safety concerns. If a tree needs to be felled for health and safety purposes then the stump should be left as tall as possible (1-4m at least) so that it can be retained as standing deadwood.

    - No herbicides or pesticides will be used within the woodland.

    - The retention of ivy covered trees, where possible, would be beneficial in terms of providing an additional food resource (invertebrates and berries) and potential nest sites. Ivy must be managed in a sensitive manner on a tree by tree basis so that all the ivy is not ringbarked at once.

    - A maximum of 50% of the holly and birch trees in the understorey can be removed from the woodland once every 10-12 years.

    - A woodland edge consisting of a mosaic of shrubs, occasional trees, rough tussocky grassland and flowers will be designed and incorporated and managed around the northern edge of the woodland and other areas on site, with none of these features dominating any other. This may mean annual cutting of the ground flora but less regular thinning of scrub and woody species.

    - Any trees with diameter greater than 200mm proposed to be removed will first be checked by an ecologist to ensure there are no bird or bat issues.

    - Coppice hazel trees every 10-15 years.

    - The understorey in the woodland should not all be managed in a single year so that a structure forms with some more dense understorey and some areas with more visible ground flora.