7. BIODIVERSITY

Introduction

7.1 This chapter of the ES assesses the likely significant effects of the Development on the environment in respect of biodiversity, including ecology and nature conservation, and with regard to the Irreplaceable Habitat types of Ancient Woodland and Veteran Trees. It incorporates a summary of the Baseline Ecological Appraisal, which is included as Appendix 7.1**.**

7.2 The Chapter describes the assessment methodology; the baseline conditions at the Site and its surroundings; the likely significant environmental effects; the mitigation measures required to prevent or reduce any significant adverse effects; the likely residual effects after these measures have been employed; any compensation measures to offset significant residual effects; and enhancement measures to provide gains in biodiversity.

7.3 This Chapter has been prepared by Aspect Ecology (refer to Appendix 1.2).

Policy Context

National Planning Policy

National Planning Policy Framework

7.4 The Government published a revised version of the National Planning Policy Framework (NPPF) in July 2021[1]. The NPPF confirms the Government's commitment to conserving and enhancing the natural and local environment through the planning system, including specific reference to maintenance and enhancement of biodiversity.

7.5 The NPPF requires local authorities to fully consider the effect of planning decisions on biodiversity and geodiversity, and ensure that appropriate weight is attached to statutory nature conservation designations, protected species and biodiversity, and geological interests within the wider environment. It also considers the potential biodiversity and geological conservation gains which can be secured within developments, including the use of planning obligations.

7.6 National policy therefore implicitly recognises the importance of biodiversity and that with sensitive planning and design, development and conservation of the natural heritage can co-

exist and benefits can, in certain circumstances, be obtained.

7.7 Paragraph 174 of the NPPF states that

> *'Planning policies and decisions should contribute to and enhance the natural and local environment by:*
>
> *a) 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);*
>
> *b) 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.'*

7.8 Paragraph 174 of the revised NPPF[2] also states that:

> *'d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'*

7.9 With regard to planning applications and biodiversity, Paragraph 180 of the NPPF states that:

> *'When determining planning applications, local planning authorities should apply the following principles:*
>
> *a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
>
> *b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
>
> *c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
>
> *d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.'*

7.10 In Paragraph 185, the NPPF[2] advises that

> *'Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:'… 'c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'*

Local Planning Policy

7.11 The Wealden District Core Strategy Local Plan (adopted in February 2013)[3] in conjunction with the 'saved' policies of the Adopted Wealden Local Plan (1998)[4] form the current statutory policy framework for Wealden District Council (WDC). In addition, WDC produced a draft Local Plan (2019) in which was submitted for independent examination by the Planning Inspectorate. In February 2020, WDC formally withdrew its draft Wealden Local Plan 2019 following the Stage One examination process. The documents containing the Local Plan have been reviewed, as detailed below.

Adopted Wealden Local Plan (1998)[4]

7.12 There are several 'saved' policies outlined in the Adopted Wealden Local Plan (1998), three of which relate to ecology and nature conservation and are relevant to the site, namely:

7.13 Policy EN12 relates to protection of trees and woodlands:

> *The Council will seek to retain and enhance the contribution of trees and woodland areas to the landscape character of the District, including the amenity value of trees in built up areas. This will be promoted by:*
>
> *(1) endorsement of the principles and guidelines contained in the Trees and Woodland Strategy for East Sussex;*
> *(2) support for the preparation of local Trees and Woodland Conservation and Management Plans;*
> *(3) encouragement for woodland management through participation in tree and hedgerow planting schemes by farmers, voluntary organisations and others, and where appropriate, as part of development proposals;*
> *(4) making Tree Preservation Orders where appropriate to protect trees and woodland areas of significant amenity value;*
> *(5) giving weight to proposals, including business proposals, that help to sustain and manage forestry and woodland areas when considering them against other policies of the Plan;*
> *(6) resisting development proposals which would result in the loss of trees which make a valuable contribution to the character of the landscape, a settlement or its setting.*

7.14 Policy EN13 relates to development with effects on Ancient Woodland;

> *"The Council will resist development proposals that involve the clear felling or otherwise prejudice the ecology of Ancient Semi-Natural Woodlands, as defined by English Nature."*

7.15 Policy EN14 relates to landscaping within developments;

> *In appropriate cases, the Council will require landscaping, including surface treatments, to be carried out as part of development proposals. Where required, such schemes should:-*
> *(1) seek to retain existing trees, significant hedgerows and other valuable site features;*
> *(2) normally comprise primarily native species;*
> *(3) complement the scale and character of the proposed development and the locality;*
> *(4) have regard to associated nature conservation benefits;*
> *(5) be implemented at the earliest practicable opportunity and thereafter satisfactorily maintained during the early years.*

7.16 Policy EN15 relates to designated nature conservation sites:

> *"The Council will seek to safeguard designated nature conservation sites by resisting development or land use changes which would be likely to adversely affect their nature conservation value. The weight to be afforded to nature conservation interests will have regard to their status:*
>
> *(1) Within Ashdown Forest SSSI and Special Protection Area for Birds, and Pevensey Levels SSSI (proposed "Ramsar" site), development which would be likely to have an adverse effect on the nature conservation interest will not be permitted, unless otherwise in accordance with international obligations.*
> *(2) Within SSSIs, including Lullington Heath NNR, as shown on the Proposals Map, development which would be likely to have an adverse effect on the nature conservation interest will not be permitted unless there is no reasonable alternative means of meeting the development need which also outweighs the nationally recognised nature conservation interest.*
> *(3) Development which would be likely to have an adverse effect on a Local Trust Reserve or a Site of Nature Conservation Importance will not be permitted unless it can be demonstrated that the need for development outweighs the identified nature conservation interest and that there are no reasonable alternative means of meeting that development need.*
>
> *In all cases, every effort should be made to minimise any damage to the nature conservation interests. Where appropriate, conditions and/or planning obligations may be used to provide appropriate compensatory measures.*

Wealden District Core Strategy Local Plan (2013)[3]

7.17 The current Wealden District Core Strategy Local Plan (2013) includes four policies relating to nature conservation:

7.18 Policy SPO1 includes reference to protection and enhancement of recognised biodiversity and geodiversity attributes. The policy states "*We will help manage countryside resources and assist in the development of the rural economy whilst protecting and enhancing recognised biodiversity and geodiversity attributes, in particular we will protect the internationally important sites of the Pevensey Levels and Ashdown Forest and other designated areas of bio and geodiversity. We will also protect, and will work with others to enhance and manage, the distinct landscapes of the District, particularly, but not exclusively, those nationally designated".*

7.19 Policy SPO11 references the intention to enhance the district's creation of a coherent network of green infrastructure to enhance geodiversity and biodiversity.

7.20 Policy WCS12 (Biodiversity) states that developments should seek to prevent net loss in biodiversity, adhering to the targets provided within the Sussex Biodiversity Action Plan. The policy sets out the aims of preventing a net loss of biodiversity, ensuring a comprehensive network of habitats and ensuring habitats, biodiversity features and ecological networks are maintained, restored, enhanced and where possible created.

Wealden Local Plan Submission Document (January 2019) – Withdrawn February 2020

7.21 The plan contained a number of draft policies which relate to ecology and nature conservation, as stated below:

7.22 Policy EA1 (Biodiversity) states *that*

> *"Development proposals should not result in a net loss of biodiversity and will be required to contribute to the enhancement of existing biodiversity, and should create and manage new habitats where appropriate. New development will be supported which retains and /or enhances significant features of biodiversity and nature conservation on development sites. Regard must be had to priority habitat and species to contribute to national and local biodiversity targets. New development will also be supported where a positive contribution to biodiversity is made through the creation of green spaces, and linkages between habitats to create local and regional ecological networks and enhance green corridors."*

7.23 The policy includes reference to protection and enhancement of recognised biodiversity and geodiversity attributes, including Ashdown Forest SPA and SAC, Pevensey Levels SAC and Ramsar and Lewes Downs SAC, together with other national, regional and local sites and priority habitats and species.

7.24 Policy EA2 (Ashdown Forest Special Protection Area) states that *"Development will only be permitted if it can be concluded that there is no likely significant effect or that proposals will not adversely affect the*

integrity of Ashdown Forest SPA in view of the site's conservation objectives". The policy sets out requirements for developments within 400metres and 7km from Ashdown SPA will be required to mitigate and provide financial contribution towards the provision of the existing Strategic Suitable Alternative Natural Greenspaces (SANG) and the strategic Access Management and Monitoring (SAMM) Strategy.

7.25 Policy EA3 (Green Infrastructure) sets out how *"Development will be expected to protect, improve and enhance existing green infrastructure and contribute towards the provision of and creation of additional green infrastructure".*

7.26 Policy AF1 (Air Quality and Wealden Local Plan Growth) sets out requirements for developments in relation to air quality at Ashdown Forest SAC and Lewes Downs SAC, including mitigation and a full Habitats Regulations Assessment;

7.27 Policy AF2 (Air Quality Mitigation) sets out that developments which increase traffic movements across roads adjacent to Ashdown Forest SAC and Lewes Downs SAC will need to provide air quality mitigation in the form of a financial contribution to strategic measures and specific measures to be implemented for all new development.

National and Local Biodiversity Action Plans (BAPs)

7.28 The UK Biodiversity Action Plan, published in 1994[5] was the UK Government's response to signing the Convention on Biological Diversity (CBD) at the 1992 Rio Earth Summit. This has now been replaced by the new UK post-2010 Biodiversity Framework which focuses on the 4 individual countries of the United Kingdom and Northern Ireland.

7.29 Within England, the latest biodiversity strategy is entitled, 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services', published by Defra on 19 August 2011 with a progress update provided in July 2013[6]. This provides a comprehensive picture of how we are implementing our international and EU commitments and sets out the strategic direction for biodiversity policy for the next decade.

7.30 The approach is informed by the list of species and habitats of 'Principal Importance' under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006[7] which largely reflects those species and habitats previously listed under the UK Biodiversity Action Plan (BAP) that occur in England.

7.31 A number of local BAPS have also been produced, identifying priorities and targets for action at a local level. This includes Sussex Wildlife Trust's document 'Biodiversity and Planning in Sussex'[8]. A number of Biodiversity Opportunity Areas (BOAs) are also identified by the Sussex Local Nature Partnership which is an umbrella organisation for many statutory and non-statutory nature conservation organisations.

7.32 Reference to habitats and species listed as Priority Habitats and Species under Section 41 of the NERC Act and local BAPs is made, where relevant, in the following sections of this Chapter.

Legislative Context

7.33 The applicable legislative framework for ecology and nature conservation is summarised as follows:

- The Conservation of Habitats and Species Regulations, 2017[9]
- Wildlife and Countryside Act, 1981 (as amended)[10]
- The Natural Environment and Rural Communities Act, 2006[11]
- The Countryside and Rights of Way Act, 2000[12]
- Town and Country Planning (Environmental Impact Assessment) Regulations, 2017[13]
- The Hedgerows Regulations, 1997[14]
- The Protection of Badgers Act, 1992[15]; and
- The Wild Mammals (Protection) Act, 1996[16].

Assessment Methodology

Zone of Influence

7.34 To inform the scope of the assessment, consideration has been given to the zone of influence (ZoI) of the Development. The ZoI is defined as the area over which ecological features may be affected by the biophysical changes caused by the proposed project and associated activities. The extent of such changes will typically reduce over distance, and whether effects are experienced is dependent on the sensitivity of individual habitats, species or other ecological features, such that it is difficult to define a specific ZoI which captures all potential effects arising from the Development. As such, two broad zones are identified:

- A primary ZoI largely relating to the Site itself, incorporating habitats and associated species directly affected by the Development footprint and associated works (in terms of habitat loss or damage). This zone also includes areas affected by factors such as noise, vibration, lighting, dust and pollution, the effects of which will be focused within the nearby surrounds (i.e. within 100m) of the Development. Survey work has specifically focused on this area, to allow an assessment of habitats and species directly affected by the Development.
- Beyond this, a wider (or secondary) ZoI exists, where ecological features may be subject to wider scale effects such as recreational disturbance, air pollution from traffic or water pollution within the wider river catchment. The assessment of features within this zone is largely based on background

information identifying ecological designations, known habitats or species populations of importance which could be sensitive to such wider scale effects.

Consultation

7.35 The Development and the preparation of this Chapter has been informed by various scoping and consultation activities. A summary of consultations relating to ecology is set out in **Table 7.1** below.

Table 7.1: Summary of statutory consultations relating to ecology

Body / Organisation	Form of consultation	Summary of comments
Wealden District Council (WDC) (Ben Rainbow)	Scoping letter to WDC dated 2nd November 2020 and subsequent email correspondence (see Annex 2 of Baseline Ecological Appraisal at Appendix 7.1)	Agreement with proposed scope of surveys and methodologies and proposed approach to assessment and mitigation, including designated sites and potential effects to be considered. Agreement to scope of proposed SANG.
Wealden District Council (WDC) (planning officer)	Screening and scoping opinion dated October 2020	Notes that Phase 1 and Phase 2 surveys should be submitted as part of the planning application. Includes a summary of comments from other consultees: Environment Agency have requested that consideration is given to measures to prevent the spread of Himalayan Balsam, in addition to other invasive plant species; Natural England have provided advice on assessment requirements and indicate that consideration should be given to designated sites, protected species and habitats and species of principal importance. The response specifically notes proximity to Epping Forest Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI) and potential for effects as a result of recreational pressure and air pollution, setting out that the assessment should include a full assessment of the effects of development on the interest features and identify any necessary mitigation measures.
Natural England (Discretionary Advice Service)	DAS Request letter dated 28th September 2020	Natural England declined to comment, citing a lack of resources.
Wealden District Council (WDC) (Chris Bending – Head of Policy and Economic Development	Information relating to Fir Tree Grove/Ancient Woodland. Correspondence between November 2021, and March 2022 with supporting information	Comments on boardwalk proposal in Fir Tree Grove, wider impacts to Ancient Woodland at this location.

7.36 The methodology utilised for the survey work can be split into three main areas: desktop study, habitat survey, and faunal survey. Further details on survey methodologies are provided in the full Baseline Ecological Appraisal at Appendix **7.1**, and a summary is set out below:

Desktop Study

7.37 In order to compile background information on the Site and its immediate surroundings, a number of

recording organisations and online data sources were consulted:

- Sussex Biological Records Centre (SxBRC) search radius of 2km;
- Multi-Agency Geographic Information for the Countryside (MAGIC) database[17]; and
- Woodland Trust database of ancient, veteran or notable trees[18].

Habitat Survey

7.38 The Site was initially subject to habitat survey during August 2019 in order to ascertain the general ecological value of the land contained within the boundaries of the Site and to identify the main habitats present, based on extended Phase 1 survey methodology (Joint Nature Conservation Committee, 2010[19]) as recommended by Natural England, whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. Numerous additional visits were undertaken as part of faunal surveys between September 2019 to April 20222020, allowing habitat information to be gathered within the optimal period for botanical surveys.

7.39 For pond and hedgerow habitats in particular, detailed habitat descriptions and species lists were recorded to allow a comprehensive assessment of these habitat types.

7.40 The results of the Phase 1 Habitat Survey are presented in the Baseline Ecology Assessment, at Appendix 7.1.

Faunal Surveys

7.41 General faunal activity, such as mammals or birds observed visually or by call during the course of the surveys was recorded. Specific Phase 2 survey work was also undertaken for protected and notable species, as set out at Table 7.2 below. Further detail on survey methodologies is provided in the full in Appendix 7.1, together with the results of the surveys.

Table 7.2: Summary of Phase 2 floral and faunal surveys undertaken at the Site

Faunal Group	Survey Methodology	Date of Surveys	Guidance
Woodland Historic features and Botanical Surveys	A range of evidence was examined to evaluate woodland within the Site, including the presence of historical features, and ancient or veteran trees. A woodland botanical survey has been undertaken with particular emphasis on the presence of Ancient Woodland Indicator species.	May-July 2020 (April 2022 – Fir Tree Grove)	Woodland Trust 'Field surveys for Ancient Woodlands: Issues and Approaches[20]'.
Other Phase 2 Botanical Surveys	Survey of an area of marshy grassland off Snatts Road.	July 2020	Surveyed using methodologies provided in the 'Higher Level Stewardship (HLS) Farm

Faunal Group	Survey Methodology	Date of Surveys	Guidance
			Environment Plan Handbook'[21], and 'NVC Users Handbook'[22].
Lower Plant Surveys (Bryophytes and lichens)	Surveys of sandstone outcrops in the vicinity of Fir Tree Grove/Chicory Cottage.	April 2022	Briggs 2001 (bryophytes), Sanderson et al. 2018 (lichens)
Bats (Manual activity surveys)	A series of dusk and dawn activity surveys were undertaken across the Site to gather information on the use of the Site by foraging and commuting bats. This involved surveyors walking a predetermined transect route, recording all bat activity. The transect routes were designed to cover all the habitat types within the survey area. The Site was covered by three transects, surveyed on eight occasions.	September 2019 and August 2020	'Bat Mitigation Guidelines' (English Nature, 2004[23]); 'Bat Surveys – Good Practice Guidelines' (Bat Conservation Trust, 2012[24]); Bat Surveys for Professional Ecologists – Good Practice Guidelines" Bat Conservation Trust, 2016[25])
Bats (Automated activity surveys)	Static bat detectors were set out in six locations across the Site to monitor levels of bat activity. Detectors were left out for a number of days on eight separate occasions at each location with data collected and analysed for up to 5 consecutive nights during each survey period.	September 2019 and August 2020	
Bats (Buildings – Roost Surveys)	Internal and External Inspections were carried out of all buildings within the Site to assess roost potential. Emergence/re-entry surveys were carried out of one building.	April and May 2022	
Badger	The entire survey area and immediate surrounds were surveyed for evidence of Badger setts and activity, including presence of well-worn paths, push-throughs, snagged hair, footprints, latrines and foraging signs	Conducted during Phase 1 survey (August 2019) and subsequent survey visits	'Occasional Publication No.9 – Surveying Badgers' (Mammal Society, 1989[26])
Breeding Birds	A survey of breeding birds was undertaken over three visits to the Site, involving walking a route and recording all birds either seen or heard. These 'registrations' are recorded on a plan of the Site using standard British Trust for Ornithology (BTO) codes for each bird species. This survey methodology has the advantage over other techniques of mapping each registration to a specific point within the Site and this therefore illustrates those areas and habitats containing the highest density and diversity of bird species.	April to June 2020	BTO Common Bird Census methodology[27]
Dormouse	Accordingly, a total of 175 Dormouse nest tubes were deployed within the Site, distributed evenly throughout the hedgerows and woodland edges within the Site. Nest tubes were checked monthly between October 2019 and July 2020, giving a total survey effort score of 20 points across the entire survey area.	October 2019 and July 2020	Surveying dormice using nest tubes: Results and experiences from the South West Dormouse Project' (English Nature, 2003[28])*;* The Dormouse Conservation Handbook, 2nd Edition (English Nature Research Report No. 524[29]); and Natural England (2011) '*Interim Natural England Advice Note – Dormouse surveys for mitigation licensing –*

Faunal Group	Survey Methodology	Date of Surveys	Guidance
			best practice and common misconceptions', WML-537 (12/11)[30]
Great Crested Newt	Six waterbodies are present within the Site with an additional six offsite, of which were five on-site ponds, **P2-P6** and two off-site ponds (**P8** and **P22)** were subject to Great Crested Newt environmental DNA (eDNA) survey. The survey involved collecting water samples from the pond and analysed for Great Crested Newt DNA. Population size class assessments were carried out of four ponds (**P1, P6, P20 and P21**)	May and April 2020	Natural England Standing Advice: Great Crested Newts'[31]; Evaluating the suitability of habitat for the Great Crested Newt (Oldham et al, 2000[32]); 'Great Crested Newt Mitigation Guidelines' (English Nature 2001)[33]; 'Analytical and Methodological Development for Improved Surveillance of Great Crested Newt' (Biggs et al. 2010)[34]
Reptiles	A number of artificial refugia in the form of a total of 140 50x50cm squares of thick roofing felt were strategically placed in suitable reptile habitat throughout the Site. These were checked at appropriate times of the day in suitable weather conditions to establish if they were being utilised by reptile species. In addition, reptiles were also actively searched for in suitable locations throughout the Site.	June and July 2020	'Herpetofauna Workers Manual' (JNCC, 1998[35]) and 'Advice Sheet 10: Reptile Survey' (Froglife, 1999[36])

Evaluation of Ecological Baseline

7.42 The evaluation of ecological features and resources should be based on sound professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this chapter is based on that described in 'Guidelines for Ecological Impact Assessment in the UK and Ireland' published by the Chartered Institute of Ecology and Environmental Management (CIEEM) in 2018[37] (updated April 2022) whereby important ecological features are identified, and these are considered within a defined geographical context using the following frame of reference:

- International;
- National;
- Regional;
- County;
- District;
- Local; and
- Site (not of elevated importance at a local level).

7.43 Features considered to be of importance at the Site level only have been scoped out of this assessment (with the exception of protected species which are considered in terms of mitigation and any legislative requirements).

7.44 Further details on this approach and the criteria used for evaluation are provided in the Baseline Ecological Appraisal at Appendix 7.1.

Assessment of Impacts and Significance

7.45 The CIEEM publication 'Guidelines for Ecological Impact Assessment in the UK and Ireland' also sets out a methodology for the assessment of potential effects arising from development. These methods are followed which can be summarised as below.

7.46 Using the agreed parameters of the Development, likely significant effects are determined with reference to aspects of the ecological structure and function on which the feature or resource depends. This includes factors such as the available resources, ecological processes, human influences, historical context, ecological relationships, ecological role or function and ecosystem properties. Based on this context, the nature of the effect is characterised and considered under the following parameters:

- Positive or negative – will the activity lead to an adverse, beneficial or neutral effect;
- Extent – the size or amount of an impact, the area of habitat or number of individuals affected;
- Duration – the time for which the impact is expected to last prior to recovery or replacement, i.e. short-term or long-term;
- Reversibility – an effect may be irreversible in that recovery is not possible within a reasonable timescale or there is no reasonable chance of action being taken to reverse it, i.e. permanent or temporary; and
- Timing and frequency – some changes may only cause an impact if they coincide with critical life-stages or seasons, whilst frequent events may cause a greater effect than a single event.

7.47 Based on these parameters, the scale of effect (or magnitude) can be summarised as follows. This is in relation to adverse effects, although a similar scale can be applied to beneficial effects.

Table 7.3. Methodology for Assessing Magnitude of Ecological Effects

Magnitude of Impact	Criteria for Assessing Impact
Major	Total loss or major/substantial alteration to key elements/features of the baseline (pre-Development) conditions such that the post Development character/composition/attributes will be fundamentally changed. Ecological interpretation: A permanent or long-term effect on the receptor, which may result in severe damage to key characteristics and implications for the integrity of the receptor or its conservation status.

Magnitude of Impact	Criteria for Assessing Impact
Moderate	Loss or alteration to one or more key elements/features of the baseline conditions such that post Development character/composition/attributes of the baseline will be materially changed. Ecological interpretation: Impacts resulting in partial loss of or damage to a receptor, which could have implications for the integrity of the receptor or its conservation status.
Minor	A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible/detectable but not material. The underlying character/composition/attributes of the baseline condition will be similar to the pre-Development circumstances/situation. Ecological interpretation: Short-term or temporary impacts resulting in only minor loss of or damage to a receptor, unlikely to have implications for the integrity of the receptor or its conservation status.
Negligible	Very little change from baseline conditions. Change barely distinguishable, approximating to a 'no change' situation. Ecological interpretation: No effect or only a short-term reversible impact with no long-term effect on the receptor.

7.48 The sensitivity of a receptor is based on the relative importance of the receptor using the scale in Table 7.4.

Table 7.4 Methodology for Determining Impact Sensitivity

Sensitivity	Examples of Receptor
High	The receptor/resource has little ability to absorb change without fundamentally altering its present character, or is of international or national importance.
Moderate	The receptor/resource has moderate capacity to absorb change without significantly altering its present character, or is of high importance.
Low	The receptor/resource is tolerant of change without detriment to its character, is of low or local importance.

7.49 The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the impacts can be beneficial or adverse. The Effect Significance Matrix is set out in Table 7.5.

Table 7.5 Effects Significance Matrix

Magnitude	Sensitivity		
	High	Moderate	Low
Major	Major Adverse/Beneficial	Major – Moderate Adverse/Beneficial	Moderate – Minor Adverse/Beneficial
Moderate	Major – Moderate Adverse/Beneficial	Moderate – Minor Adverse/Beneficial	Minor Adverse/Beneficial
Minor	Moderate – Minor Adverse/Beneficial	Minor Adverse/Beneficial	Minor Adverse/Beneficial – Negligible
Negligible	Negligible	Negligible	Negligible

7.50 In terms of what is ecologically 'significant', CIEEM guidance defines a 'significant effect' as *"an effect that either support or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general"*, going onto state that *"significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems*

and the conservation status of habitats and species (including extent, abundance and distribution).”

7.51 Significance is also assessed at an appropriate geographic scale. For example, a significant effect on a SSSI would be of national significance. Notwithstanding this however, consideration is also given to whether an effect is significant at a scale below the geographic context in which the feature is considered important.

7.52 For some ecological features (notably designations), there may be an existing statement of the conservation status of a feature and objectives and targets against which the effect can be judged. For example, SSSIs are assessed under six condition categories, namely favourable, unfavourable recovering, unfavourable no change, unfavourable declining, part destroyed, and destroyed. An effect that exerts a change between these condition categories would be considered as significant.

7.53 Where no existing statement of conservation status is available, an assessment is made against the existing status and condition of the habitat or species population, as recorded by survey data and background information, taking into account the level of ecological resilience or existing conditions that a habitat or species is currently subject to. An effect resulting in a long-term change to the existing background population trend or status at a given geographical level would be considered as significant. In this regard, a significant beneficial impact could be defined as one that prevents or slows an existing decline in the favourable conservation status of a habitat or population as much as one that permitted a population or habitat area to increase.

7.54 The likelihood or uncertainty of an effect occurring as predicted is also considered. To assist with defining certainty, the following scale is used (with broad confidence levels indicated in percentage terms):

- Certain/near-certain: probability estimated at 95% chance or higher;
- Probable: probability estimated above 50% but below 95%;
- Uncertain: probability estimated above 5% but less than 50%; and
- Extremely unlikely: probability estimated at less than 5%.

Limitations and Assumptions

7.55 All of the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during

different seasons. The Phase 1 habitat survey was undertaken outside the optimal season, however, numerous subsequent visits to the Site were conducted during the optimal season, during which features of botanical interest were noted. In any event, no habitats of particular interest were identified during Phase 1 survey work which would require further botanical survey work. Therefore, the surveys undertaken are considered to allow a robust assessment of the ecological interest of the Site to be made.

7.56 The specific Phase 2 surveys were undertaken at the appropriate times of year and during suitable weather conditions to an appropriate level of survey effort. Any specific limitations are noted in the accompanying Baseline Ecological Appraisal (see **Appendix 7.1**), although no significant constraints were experienced.

Baseline Conditions

Ecological Designations

7.57 Ecological designations that occur within the local area are summarised in the Table 7.6 below, whilst those within 2km are shown on **Plan 7.1**. Further detail is provided in Section 3 of the Baseline Ecological Appraisal at **Appendix 7.1**.

Table 7.6 Ecological Designations within the zone of influence

Name	Designation	Brief Description	Distance from Site	Level of value
Statutory Designations				
International Designations (within 25km search radius)				
Ashdown Forest	Special Protection Area (SPA)	The designation is based on large continuous blocks of wet and dry heaths lowland, together with populations of Great Crested Newt.	3.4km to North	International
Ashdown Forest	Special Area of Conservation (SAC)	The SPA is designated on the basis of regularly supporting nationally important breeding populations of Nightjar *Caprimulgus europaeus* and Dartford Warbler *Sylvia undata*.	3.7km to North	International
Lewes Downs	SAC	Semi-natural dry grasslands and scrubland facies established on calcareous substrates, including important orchid sites.	10.7km to South	International
Castle Hill	SAC	Semi-natural dry grasslands and scrubland facies established on calcareous substrates, including important orchid sites.	17.3km to South-west	International
Pevensey Levels	SAC and Ramsar	Little whirlpool ram's-horn snail *Anisus vorticulus*	17.6km to South-east	International
National Designations (within 2km search radius)				
West Park, Uckfield	Uckfield Local Nature Reserve (LNR) and Local Wildlife Site (LWS)	The LNR is designated on the basis of a variety of habitats, including woodland, sandstone outcrops, marshland and open grassland.	100m to South	County
Buxted Park	Site of Special Scientific Interest (SSSI)	Unimproved grassland communities with parkland trees and areas of woodland.	800m to East	National
Hempstead Meadows	LNR	The area supports a variety of wildlife typical of undeveloped river corridors; including birds such as snipe and kingfisher and plants such as primrose, bluebell, tussock sedge and ferns. The meadow also forms a valuable foraging area for the bats that have been recorded from neighbouring properties.	1km to East	County
Non-statutory Designations (within 2km seach radius)				
Lake Woods	LWS and Local Geological Site (LGS)	Ancient woodland, managed by the Woodland Trust, surrounding a large man-made lake with sandstone outcrops supporting important populations of bryophytes.	Adjacent to Southern boundary	County
Butcher's Wood, Uckfield	LWS	Ancient woodland, together with a large population of Wild Daffodil *Narcissus pseudonarcissus*, and significant sandstone outcrops of rich and interesting bryophytes.	35m to West	County

Name	Designation	Brief Description	Distance from Site	Level of value
Uckfield Cemetery	LWS	The site contains neutral species-rich grassland comprising species-rich low acidic grassland sward and populations of Green-winged Orchids (*Orchis morio)*.	250m to East	County
Shortbridge Stream (Shortbridge Stream Meadow LWS)	EA main river and LWS	Shortbridge Stream is a tributary of the River Ouse that rises near Maresfield and joins the river near Sharpsbridge. It is classified as an Environment Agency Main River, and is known to support Sea Trout (*Salmo trutta trutta*). The LWS comprises a series of fields along Shortbridge Stream, and an extensive area of marshy grassland, tall herb and swamp-type vegetation. The habitats support a diverse range of invertebrates and sedge species.	250m to West	County
Budlett's Common Rocks	LWS	This site consists of extensive rocks which are situated in three large gardens. The site supports a number of rare and uncommon liverworts and mosses, including a number of characteristic sandrock species.	800m to North-east	County
Maresfield Churchyard LWS	LWS	The site contains neutral grassland fields which contain species-rich areas of the lawn whilst supporting a rich mix of CHEG fungi species.	1.4km to North-west	County
Piltdown Common	LWS	The site is a well-managed golf course with a complex mosaic of habitats comprising heathland, acid grassland, scrub, woodland and a large pond.	2km to West	County
Western Ouse Streams and Ashdown Forest	Biodiversity Opportunity Area (BOA)	Dominated in the north by protected heathland forming part of the European designation, which supports a number of habitats comprising open heath, ancient woodland, ghyll woodland and wetlands.	Within Site	Local

Ancient Woodland

7.58 A significant proportion of the woodland within the Site is identified as Ancient Semi-Natural Woodland (ASNW) on the current provisional Inventory of Ancient Woodland. The distribution of ASNW is identified on Figure 7.3**,** with the following woodland areas being within the red line area denoted by their respective woodland compartment number:

- Part of Budletts Wood (**W4**);
- Shermanreed Wood (**W5**);
- Longwood Gill (**W6**);
- Woodland adjacent to A22 – North (**W7**);
- Part of Woodland adjacent to A22 – South (**W8**); and
- Fir Tree Grove (**W9**).

7.59 Further areas of ASNW are located off-site, but within close proximity, as follows:

- Lake Wood;
- Budletts Wood – East (**W3**);
- Part of Budlett Wood - West (**W4**); and
- Butchers Wood.

Habitats and Ecological Features

7.60 Full descriptions of habitats and ecological features within the Site are given in Section 4 of the Baseline Ecological Appraisal at Appendix 7.1, whilst the location of habitats and ecological features are represented on Figure 7.3.

7.61 A summary of the habitats considered to be of ecological importance occurring within and adjacent to the Site (i.e. within the primary ZoI) is given in Table 7.7 below.

Table 7.7 Summary and Evaluation of Important Habitat Receptors

Habitat Type	Description	Level of Importance
Ancient Semi-Natural Woodland	Budlett's Wood – East (**W3**) abutting Paygate Wood, is outside the Development area, and comprises mixed deciduous woodland with infrequent mature Oak, together with Birch, Hornbeam, Sweet Chestnut and frequently an understory of Hazel. A small number of Ancient Woodland Indicators are present (seven in total). Budlett's Wood – West (**W4**) is a large, wooded area, some parts of which fall within the Development area (woodland compartments **W4c**, **W4d** and **W4c**). The woodland comprises a wide range of deciduous stand types and is dissected by a watercourse which runs in an east-west orientation, including areas of climax oak woodland in the west (**W4e**), together with an area of wet Willow/Birch woodland (**W4d**), stands of Chestnut coppice (**W4b**), and areas of more mixed woodland. There is a large heathy clearing in the west part of the woodland (**W4c**). Shermanreed Wood (**W5**) is a diverse woodland forming a broad linear corridor between fields **SI1** and **SI3**, which includes stands of Oak and Birch woodland, with areas of Alder dominant along a central watercourse. Recently planted stands occupy a large part of the woodland, and some groups of Larch. In the south of the woodland there are several borrow pits which have been identified by historical map analysis as originating from iron-ore extraction activities. On the east side of the woodland is a historic ditch and wood-bank feature which has a number of old Ash coppice stools, including several veteran specimens. A total of 28 Ancient Woodland Indicator species are present. Longwood Gill (**W6**) is a narrow steep-sided wooded valley or ghyll, forming a linear feature along an ephemeral/dry stream bed. Steeply sloping banks are present on both sides, and sandstone outcrops are present at the head of the valley where there is evidence of erosion from flash flooding. Tree cover is mainly semi-mature to mature Oak, with Beech and Cherry also present, whilst an understory of hazel coppice occurs throughout. Woodland adjacent to A22 - North (**W7**), is a strip of woodland alongside the A22 which contains wet woodland with frequent Alder and Birch located around a series of silted damp hollows which are fed by from two minor tributaries to the south and possibly taking road run-off. The woodland becomes dryer to the south, and contains some semi-mature oak, together with Birch and an understory comprising Holly and Hazel. A large number of AWIs are present (22 in total) are present. Woodland adjacent to A22 – South (**W8**) is a continuation of W7, being a linear woodland located between the A22 and Field F2 which contains one block of Ancient Woodland (**W8b**). The woodland, which formed part of Thirty-acre Wood, before it was separated by the construction of the A22, contains frequent early mature Oak, Ash and Sycamore, together with Hornbeam, Sweet Chestnut and Horse Chestnut. A moderate number of AWIs are present (11 in total). Fir Tree Grove (**W9**) is a copse to the NW of the junction between Rocks Road and Snatts Road. forming part of the garden of Chicory Cottage. Sandstone outcrops are present. A mature mixed woodland canopy is present with frequent Scot's Pine alongside Oak and Ash. A large number of AWIs are present (20 in total) are present.	District
Other woodland	The majority of Woodland Adjacent to A22 – South (**W8a**, **W8c** and **W8d**) contains mainly secondary deciduous woodland with a number of distinct woodland blocks, with a variety of stand types, and with differing species composition and age class. Woodland compartment 8a is mainly recently planted woodland with Birch, Field Maple, Hawthorn, Ash, Hazel and Oak, with an element of self-sown Willow and Alder, with disturbance possibly resulting from the construction of the A22. The ground flora here is very poor, mainly limited to Ground Ivy and Enchanter's Nightshade with some Wood Anemone which has crept in from adjacent areas. Two AWIs are present. Area **W8c**, where the northern part of the woodland has grassy glades, with Bracken. A small number of AWIs are present (four in total). Further south, in Area W8d are further areas of young woodland containing a range of species which appear to have been relatively recently	Local

Habitat Type	Description	Level of Importance
	planted. Towards the far south of the area woodland grades into thick hazel-dominated scrub with Sweet Chestnut, Horse Chestnut and Sycamore. Only one AWI (Field Maple) is present, although this is likely to have been recently planted. A separate wooded copse (W6b) exists to the south of Longwood Gill, connected by hedgerow **H2**, which is designated as Ancient Semi-Natural Woodland. The copse surrounds pond **P6**, with has steep wooded banks with trees comprising Oak, Beech, and Cherry, with an understory of Blackthorn, Hawthorn and Grey Willow.	
Veteran Trees	A number of veteran trees were recorded within the Site. Trees **T3001**, **3003** and **3004-6** are a group of substantial Veteran Ash coppice stools located on a woodbank on the east side of Shermanreed Wood (**W5**). The stools are of large diameter with their boles being typically of between 1 and 2m across and having substantial basal cavities and deadwood. Tree **T3007** is a Veteran Gean located close to the group of Ash described above. It has a very stout upright stem, has bark loss on the lower stem and dry habitat spaces present on the stem, as well as major deadwood. Tree **T7041** is a Veteran free-standing Beech within field SI1. The main stem has extensive decay from base to top where historic storm damage has removed the main leader above c.8.5m with a diameter of approximately 800-900mm, and showing major storm damage, a lightning strike and having extensive rot. Fir Tree Grove contains a Veteran Oak **T8036**, which has a range of veteran features and a Veteran Beech **T8039**, having major stem decay with *Ganoderma* fungal fruiting bodies present.	District
Moderately Species-rich Grassland	Area **SI4** is an area of moderately species-rich tall-sward neutral grassland, parts of which appear to be flushed with spring water, and which also contains well-spaced mature Oak specimens (typically with 60-80cm diameter stems), and frequent scrub. It is being rapidly colonised by tree seedlings. Botanical survey results do not show a good fit with any particular National Vegetation Classification (NVC) community the habitat it does meet the criteria for Purple Moor-grass and Rush Pasture Priority Habitat type (type G07 under the Higher Level Stewardship Farm Environment Plan) and is considered to be of ecological value on a local level on account of its botanical diversity.	Local
Sandstone Outcrops - Lower Plant Communities	Sandstone outcrops to the south of Fir Tree Grove (**W9**) supported a number of bryophyte species, which did not include any that are considered Nationally Scarce, nor scarce in Sussex. Lichens on rock were very limited, but some notable species were recorded on several large trees near Chicory Cottage	Site
Native Hedgerows and Tree Lines	One hedgerow (**H1**) and one tree line (**TL1**) is present within the Site. Both features are native and considered to be likely to qualify as national priority habitats, as well as being considered to qualify as 'important' under the Hedgerows Regulations 1997[38].	Local
Watercourses	A series of small ephemeral watercourses flow through the woodland areas of the Site, which are shown as **WC1**, **WC2** and **WC3** on Figure 7.3. Some of these are associated with ghyll woodland (particularly those in Shermanreed Wood (**W5**) and Longwood Gill (**W6**)). Together with other minor tributaries originating from Budletts Wood to the north, these pass through two culverts under the A22 before joining the Shortbridge Stream to the west. The stream channels have mostly shallow banks, becoming steeper sided within the woodland gyhll sections.	Local
Ponds	Six ponds are located within the Site, along with a further six ponds located within 250m of the Site boundary, labelled **P1** to **P11** on Figure 7.3. The ponds recorded within the Site are generally located within woodland, many of them located on minor tributaries, which are very susceptible to drying. All are shaded by the surrounding woodland are likely to be very seasonal and are heavily silted and clogged with leaf litter. Most do not contain any aquatic vegetation and represent very low-quality examples of this habitat type. Pond **P6** would be considered as a Priority Habitat based on the fact that it supports a population of Great Crested Newt, whilst the other ponds are not considered to meet the criteria of BAP priority habitat description in their current form, although there is scope for their improvement.	Local

7.62 Other habitats present within the Site include semi-improved species-poor grassland, scrub, and tall ruderal vegetation. Such habitats are not considered to form habitats of ecological importance and are not subject to specific assessment.

Faunal Use of the Site

7.63 A range of faunal surveys were undertaken between 2019 and 2022 for bats, Badger, Dormouse, breeding and wintering birds, Great Crested Newt and reptiles. In addition, general observations were made of any faunal use of the Site with particular attention paid to the potential presence of protected or notable species.

7.64 Full details of this survey work are included in the Baseline Ecological Appraisal at Appendix 7.1, whilst a summary of faunal species considered to be of ecological importance occurring within the Site and its immediate surrounds (i.e. the primary ZoI) is set out in Table 7.8 below.

Table 7.8: Summary and evaluation of important faunal species present

Faunal species	Description	Level of Importance
Bats (roosting)	One building within the Site was identified as having 'low' potential for roosting bats, although emergence/re-entry surveys did not confirm any roost. A low number of trees within the Site have been identified as providing bat roosting potential, largely associated with wooded vegetation and hedgerows, although a small number are present within the grassland. No evidence indicating the likely presence of a substantial bat roost was recorded although it is possible that bats may utilise trees within the Site on at least an occasional or temporary basis.	Local
Bats (foraging and commuting)	Overall, low to moderate levels of activity were recorded within the Site, with at least seven species (or species groups) recorded during the surveys. Common Pipistrelle and Soprano Pipistrelle were most frequently recorded, with sustained foraging activity by a moderate number of bats throughout the Site, particularly along the woodland edges and within and around the semi-improved species-rich grassland in the east of the Site. Myotis sp. bats and Big bats (Noctule and Serotine) were recorded fairly frequently. The remaining species were recorded infrequently and in very low numbers, indicating that the Site is used sporadically and is unlikely to be of high importance for these species.	District
[redacted]	[redacted] levels of foraging activity.	Site
Dormouse	Suitable habitat is present in the form of woodland within and surrounding the Site. Dormouse were found to be widespread throughout the Site and wider study area during surveys, with the majority found in Woodland adjacent to A22 – south (W8), on the edge of Lake Wood with occasional evidence found on the edge of Longwood Gill (W6) and around the edges of the clearing within Budletts Wood (W4c). Dormouse is relatively widespread within Sussex.	Local
Other mammals (including Hedgehog)	The Site provides potential opportunities for Hedgehog, which is listed as a priority species under Section 41 of the NERC Act 2006, albeit this species remains common and widespread in England, whilst habitats within the Site are unlikely to be of importance in a local context.	Site
Birds	The Site offers a range of opportunities for bird species, particularly in the form of wooded habitats, hedgerows, and grassland margins, which offer foraging areas and potential nesting areas for a range of bird species. Being dominated by mature deciduous woodland, the Site supports a large population of breeding birds that is generally typical of the habitat, without being especially diverse, and resulting in a very high percentage of species that are definitely or probably breeding. In contrast, the open grassland areas were devoid of birdlife. RSPB Red or Amber List species breeding in woodland or scrub at the Site include stock dove, song thrush, mistle thrush, dunnock and bullfinch, with mallard on a woodland pond. All these species remain common and widespread in both a local and national context, as are all the other species recorded breeding at the Site.	Site
Great Crested Newt	A number of ponds are present at the Site and its immediate surrounds, whilst suitable terrestrial habitat is present at the Site in the form of areas of wooded vegetation and rough grassland. Great Crested Newt was recorded as being present within one pond in the southern central part of the Site (**P6**).	Local
Reptiles	The Site supports a range of potential habitats for reptiles, although the majority of opportunities are likely to be limited to the edges of the large grassland fields. A peak count of 10 Common Lizard was recorded scattered at low densities throughout the field margins of the Site, The area of suitable reptile habitat at the Site is estimated to be c.4.5ha and therefore the peak count equates to a population of two Common Lizard per hectare, which would be classified as a 'low' population under standard guidance[39]. A peak count of 11 Slow-worm was also recorded at low densities throughout the Site. Taking an area of c.4.5ha of suitable habitat, the peak count equates to a population of two Slow-worm per hectare, which would also be classified as a 'low' population. One grass snake was recorded on the edge of Budletts Wood – West. As such it is considered	Local

	that a 'low' population of Grass Snake is present at the Site, whilst this species typically ranges over a wide habitat area indicating only occasional use.	
Invertebrates	No evidence for the presence of any protected, rare or other notable invertebrate species was recorded within the Site during the survey work undertaken, whilst the majority of the Site, dominated by species-poor grassland, supports few micro-habitats that would typically indicate elevated potential for invertebrates. However, ponds, watercourses, hedgerows and other wooded vegetation within the Site are likely to provide some opportunities for common and widespread invertebrates.	Site

Schedule 9 Invasive Species

7.65 During the course of the survey work undertaken, Rhododendron spp. was observed in several localities including within Budletts Wood – West (woodland areas **W4c**, **W4d** and **W4e**), and within Shermanreed Wood (**W5**), and Fir Tree Grove (**W9**). Himalayan Balsam, Japanese Knotweed and Giant Rhubarb were recorded at the southern end of Shermanreed Wood (**W5**). These species are listed in the Wildlife and Countryside Act 1981 (as amended)[40] under Schedule 9 Part II which makes it an offence to cause to grow in the wild any plant listed on the schedule.

7.66 Within the wider study area, which included an additional area of woodland to the north of the site (illustrated at Figure 7.3), a number of additional instances of invasive species were recorded, which include the following:

- Extensive stands of Rhododendron in Budletts Wood – West (**W4g**);
- Occasional stands of Rhododendron in Budletts Wood – East (**W3**);
- Areas of Variegated Yellow Archangel, Japanese Knotweed,and Shallon in Budletts Wood (woodland compartment **W4g**); and
- Cherry Laurel in Fir Tree Grove (**W9**).

7.67 Consideration is given to Schedule 9 invasive species, and other invasive plant species, in the Mitigation Measures section, although given they do not form an important ecological feature they are not subject to specific assessment.

Likely Significant Effects

7.68 The Development that is assessed in terms of likely significant effects has been developed following an iterative process of design, with a number of mitigation measures incorporated as part of the Development as set out within Chapter 3 of the ES. Particular measures incorporated in relation to ecology include:

- Retention of key habitat areas, namely all Ancient Woodland, veteran trees, all ponds and watercourses, and all hedgerows and tree lines within the landscape and open space areas;
- All Development (with the exception of compatible features such as SuDs) has been excluded from a 15m buffer zone around all Ancient Woodland. This zone will be protected by suitable tree protection fencing during the construction phase of the Development. Further details of this embedded mitigation, which will form part of a CEMP are given in Paragraph 7.248-250 below.

- Creation of substantial area of public open space (Downlands Woodland Park) within the north of the Site, forming Sustainable Alternative Natural Greenspace (SANG) and including the retention of field **SI1**, **SI2** and **SI4** within retained public open space (with the SANG area being 18.1ha)
- Additional areas of semi-natural areas of informal public open space amounting to 7ha, as shown in the Green Infrastructure Parameters Plan (Figure 3.3);
- Creation of at least 2ha of new woodland planting and 2ha of scrub planting within the SANG and other public open spaces, and within Ancient Woodland buffer zones;
- Creation of 2no. new permanent ponds within SuDs, and a further 1no. pond within the proximity of Pond **P6**;
- Provision of additional connective habitat in the form of corridors of landscape and open space between Development areas;
- Retention of Pond **P6**, together with a buffer zone of 50m at the southern central part of the Site; and
- Retention of all watercourses within their woodland setting.
- New permanent boundary fencing between the Site and Lake Wood Local Wildlife Site (LWS). Details of the alignment of proposed fencing is shown on the Green Infrastructure Parameters Plan (Drawing ref. 1309.04).

7.69 Further detail on how these embedded measures avoid or mitigate significant effects is given in the following section.

7.70 This section sets out the potential significant efforts of demolition / construction and completed Development phase works on ecological receptors identified as being of ecological importance, as summarised in Table 7.9 below.

7.71 Receptors not considered to be of importance at the local level or above (of Site importance only) are scoped out of this assessment, although consideration of mitigation and legislative requirements for protected species, is given in the mitigation section later in the chapter.

Table 7.9: Potential ecological effects and receptors

Receptors	Potential effects											
	Construction phase (temporary effects)						Operational phase (permanent effects)					
	Habitat Loss/Direct Damage of Habitats	Pollution Effects (air and dust)	Hydrologyand Water Pollution Effects	Lighting Effects	Disturbance Effects (Noise and Human Dusturbance)	Direct Harm to faunal species	Permanent Loss/Damage of Habitat	Fragmentation Effets (Habitats)	Pollution Effects (air quality and dust)	Hydrology and water pollution	Anthropogenic effects (Disturbance /Urbanisation)	Lighting Effects
International Statutory Designations									x		x	
West Park, Uckfield LNR			x					x	x		x	
Lake Wood LWS	X	X	X	X	X			X	X	X	X	X
Butchers Wood LWS		X	X	X				X	X			
Shortbridge Stream (Main River and including Shortbridge Stream Meadows LWS)		X								X		
Other Non-statutory Designations (Uckfield LWS, Uckfield Cemetery LWS etc.)								x	X			
Other Ecological Designations								x	X			
Ancient Woodland	X	X	X	X	X		X	X	X	X	X	X
Other Woodland	X	X	X	X			X	X	X	X	X	X
Veteran Trees	X		X				X					
Species-Rich Grassland (off Snatts Road)	X	X	X	x			X	X	X			
Other Habitats (namely on-site watercourses; ponds; native hedgerows and tree lines)	X	X	X	x			X	X	X			
Shortbridge Stream			X							X		
Bats	X	X		X		X	X	X				X
Dormouse	X	X		X	X	X	X	X			X	X
Great Crested Newt	X	X	X			X		X	X			
Reptiles	X	X			X	X	X	X	X			

7.72 A number of woodlands listed on the provisional Ancient Woodland inventory are located within the proximity of the Development, whilst a number of veteran trees are also located within the Site. In the case of Ancient Woodland Veteran Trees the potential for likely significant effects to occur during the construction and operational phases of the Development, is assessed against the Natural England and the Forestry Commission jointly publish Standing Advice on Ancient Woodland and Veteran Trees[41]. This Advice includes inter alia the following list of potential adverse impacts on these features from nearby development. For the purposes of this assessment these have been divided into several sub-headings, each representing a group of effect types.

Table 7.10. Ancient Woodland - Direct and Indirect Effect Types (from Natural England/Forestry Commission Standing Advice:

Impact Type	Description from NE/FC Standing Advice
Direct Effect Types	
Habitat Loss/Direct Deterioration Effects	• *Damage or destruction (including loss of soils, ground flora or fungi);* • *Damage to roots and understorey;* • *Damage or compaction of soil;* • *Damaging functional habitat connections;* • *Detrimental changes to the woodland ecosystem (ie. by removing woodland edge or thinning trees)*
Pollution Effects	• *Increased levels Air pollution* • *Increased levels Dust Pollution*
Hydrological Effects	• *Changing the water table or drainage of woodland or individual trees*
Lighting Effects	• *Increased levels of Light pollution*
Archaeological Effects (Assessed separately under Chapter 9 Cultural Heritage of this ES)	• *Damaging archaeological features or heritage assets*
Indirect Effect Types:	
Fragmentation Effects	• *Breaking up or destroying working connections between woodlands and ancient or veteran trees* • *Reducing the amount of semi-natural habitats next to ancient woodland*
Pollution Effects	• *Increased levels of Dust Pollution* • *Increased levels of Air Pollution*
Lighting Effects	• *Increased levels of Light Pollution*
Water Quality Effects	• *Increasing the amount of water pollution*
Disturbance/Urbanisation Effects	• *Damage to Habitat by increased access (e.g. trampling of plants and erosion)* • *Disturbance to wildlife from additional traffic and visitors* • *increased damaging activities like fly-tipping and the impact of domestic pets*
Landscape Effects (Assessed separately under Chapter 6 Landscape and Visual of this ES)	• *changing the landscape character of the area*

7.73 Information relating to the construction and operational phases as presented in Chapter 3 'Site and Development Description' and Chapter 5 'Construction Methodology and Phasing' forms the basis of this assessment. The extent of areas affected by the Development is therefore based on the Land Use and Access Parameter Plan (Figure 3.1) which shows built

development areas (e.g. residential development) within which habitats are likely to be lost, and the Green Infrastructure Parameters Plan, which shows areas of, within which habitats can be retained and enhanced. This has been informed further by the Illustrative Masterplan (Figure 3.5) which shows one way in which the Development will be built. Given the outline nature of the application, the specific detail of individual habitat losses will be confirmed at the detailed design stage.

Construction Phase

Design Solutions and Assumptions

7.74 The likely significant effects considered within this section are those relating to temporary factors arising from the construction process, such as construction Site noise or dust production, and which will cease to apply following completion of the Development (referred to as 'Operational Phase'). Thus, loss of habitats through permanent land take for development is considered as an 'Operational Phase' effect, although the land take actually occurs during the construction phase of the Development.

West Park (Uckfield) Local Nature Reserve

7.75 The statutory designation West Park (Uckfield) LNR is located approximately 100m to the south of the Development and is designated on the basis of having a variety of habitats, including woodland, sandstone outcrops, marshland and open grassland. The designation is fully retained under the Development, and the distance between the Site and the designation means that habitats will not suffer from direct damage or disturbance to vegetation. It is also considered unlikely that indirect effects, such as damage to habitats resulting from dust deposition and surface run-off of contaminants or silt, will result from the construction of the Development.

7.76 Effects on West Park (Uckfield) LNR are therefore considered to be negligible and non-significant (near certain), at the County Level.

Lake Wood Local Wildlife Site

7.77 Lake Wood LWS is located adjacent to the southern boundary of the Site and is designated on the basis of Ancient Woodland, managed by the Woodland Trust, surrounding a large man-made lake with sandstone outcrops supporting important populations of bryophytes.

7.78 The designation will be fully retained under the Development, with at least a 15m buffer

provided between the built Development areas and the designation. This will safeguard habitats from direct damage or disturbance to vegetation, however, the designation could be subject to indirect effects, particularly as a result of dust deposition and surface run-off of contaminants or silt. Such effects will be temporary, although could lead to minor degradation of woodland or wetland habitats, in the short-term. It will also be necessary to construct a new roundabout to serve the main Site access, and the construction works proposed for this part of the Development will be located approximately 70m from the designation.

7.79 As such, without mitigation, construction effects on Lake Wood LWS are considered to be minor, adverse and permanent (given its status as Ancient Woodland), and would be significant at the County level (although uncertain).

Butcher's Wood Local Wildlife Site

7.80 Butchers Wood LWS is designated for its Ancient Woodland, together with a large population of Wild Daffodil *Narcissus pseudonarcissus*, and significant sandstone outcrops of rich and interesting bryophytes. It is located approximately 35m from the proposed red line boundary, at the nearest point, although this area of the Site comprises retained scrub and woodland, and will not be directly affected by the Development, being separated from the main construction areas by the A22.

7.81 Nevertheless, it will be necessary to construct a new roundabout to serve the main Site access, and the construction works proposed for this part of the Development will be located approximately 70m from the designation.

7.82 The designation is fully retained, and given the distance between the Site and the designation, and the topography of the intervening ground, it is also considered unlikely that any indirect effects, such as damage to habitats resulting from dust deposition and surface run-off of contaminants or silt, will result from the Development.

7.83 As such, without mitigation, construction effects on Butcher's Wood LWS are considered to be negligible, and non-significant at a County level.

Shortbridge Stream (Main River and including Shortbridge Stream Meadows LWS)

7.84 Shortbridge Stream is a main river located approximately 250m west of the Site and taking flows from the minor watercourses which are located within the Site, including those that flow through Longwood Gill and Shermanreed Wood. It is a designated as a 'main river' by the Environment Agency, and is known to support populations of sea trout (*Salmo trutto trutto*). Which are a migratory fish species. The stream is classified under the Water Framework

Directive as being in Moderate conditions for both biological and physico-chemical parameters, and is in Good condition with respect to chemical quality parameters[42].

7.85 As such, surface water discharges from the Site have the potential to negatively indirect effect on water quality within the Shortbridge Stream. Without mitigation, construction effects on Shortbridge Stream are considered to be minor, adverse and short term, and could be significant at the County level (although uncertain).

Other Ecological Designations

7.86 Apart from West Park (Uckfield) LNR, the next nearest statutory designation is Buxted Park SSSI located approximately 800m to the east of the Site. Buxted SSSI is designated for its range of unimproved grassland communities with parkland trees and areas of woodland.

7.87 The nearest European statutory designation is Ashdown Forest SAC/SPA, located approximately 2.7km to the north of the Site, whilst a number of other European designations are located further afield within the 25km search radius, as described in Table 7.6.

7.88 Apart from Lake Wood LWS, and Butcher's Wood LWS, the next nearest non-statutory designation is Uckfield Cemetery LWS, which is located approximately 250m to the east of the Site. The designation contains neutral species-rich grassland comprising species-rich low acidic grassland sward and populations of Green-winged Orchids (*Orchis morio*).

7.89 It is considered that all other statutory and non-statutory designations, are highly unlikely to be affected during the construction phase. Effects on other ecological designations are therefore considered to be negligible and not significant.

Ancient Woodland

7.90 A number of woodlands listed on the provisional Ancient Woodland inventory are located within the proximity of Development. There will be no direct loss of Ancient Woodland as a result of the Development. There is however potential for direct or indirect negative deterioration effects to result from a number of impact types during the construction phase, including those resulting from inadvertent damage or habitat loss and deterioration, and pollution from surface water run-off and light pollution.

7.91 A full list of impact types is provided in Table 7.10, based on Natural England and the Forestry Commission jointly published Standing Advice on Ancient Woodland and Veteran Trees[43].

7.92 Only those effect types relevant to the construction phase are considered in this section, with a full account of operational impacts given in the relevant section below. Construction Phase effects are limited to Habitat Loss/Direct Deterioration effects and Pollution effects (both direct and indirect).

7.93 Effects relating to light pollution during the construction phase are considered in the relevant faunal sections below, since they generally relate to the potential disturbance of these species from construction lighting. A Dark Areas Map (Richards Urban Design Plan Ref. 1307.07) has been produced (and submitted as part of the planning application) to define a series of Primary Dark Zones (areas which are most sensitive to light pollution), together with Secondary Dark Zone (which are of lesser sensitivity).

Habitat Loss/Direct Deterioration Effects

7.94 The Development will not result in the loss of any woodland areas of Ancient Woodland. This has been achieved by the careful planning of all Development to avoid such losses, including the positioning of the proposed main access and secondary emergency access to avoid such losses. During the construction phase of the Development, damage to roots and understory and compaction of soil within the root protection area of trees will be avoided by the provision of a 15m buffer zone to all Ancient Woodland areas, as embedded mitigation within the Development. The 15m depth figure has widespread currency as the typical depth applied for residential development adjacent to Ancient Woodland.

7.95 Nevertheless, in the absence of suitable safeguards, there is the potential for inadvertent damage to occur to trees within Ancient Woodland, and their associated roots and soils, resulting from construction traffic entering these zones. At the location of the emergency access construction will take place within Root Protection Area of individual trees with the potential to cause damage to soils. Similarly, where the proposed cycleway/pedestrian link is proposed in Fir Tree Grove there is the potential for construction related damage resulting from the construction of the proposed boardwalk path.

7.96 As such, prior to mitigation, construction effects on habitats of importance within the Site are considered to be minor, adverse and permanent, and could be significant at a District level (although uncertain).

Pollution Effects (Air and Dust)

7.97 Air quality changes resulting from construction activities are not expected to change outside the range of acceptable thresholds. However, dust pollution arising from construction may

also have a negative effect, through deposition on vegetation.

7.98 As such, prior to mitigation, construction effects on habitats of importance within the Site are considered to be minor, adverse and permanent, and could be significant at the local level (although uncertain).

Hydrology and Water Pollution Effects

7.99 It is possible that in the absence of suitable mitigation, polluted surface water run-off resulting from construction activities, containing contaminants have a direct or indirect effect on Ancient Woodland, which may result in deterioration of the woodland.

7.100 As such, prior to mitigation, construction effects on habitats of importance within the Site are considered to be minor, adverse and permanent, and could be significant at the local level (although uncertain).

Veteran Trees

7.101 Within the jointly published Standing Advice, the list of potential direct impacts for veteran trees is the same as that for ancient woodland, as set out in Table 7.10. Those potential impacts relating to the construction phase of the Development include Loss of Habitat/Direct Deterioration Effects and Pollution Effects.

Habitat Loss/Direct Deterioration Effects

7.102 All of the veteran trees would be retained as part of the Development.

7.103 Nevertheless, in the absence of suitable safeguards, there is the potential for inadvertent damage to occur to Veteran Trees, and their associated roots and soils, resulting from construction traffic entering these zones.

7.104 As such, prior to mitigation, construction effects on habitats of importance within the Site are considered to be minor, adverse and permanent, and could be significant at the local level (although uncertain).

7.105 Veteran trees are not generally susceptible to other types of effects that might arise during construction, such as those arising from dust deposition, or light pollution or changes in air quality.

7.106 As such, prior to mitigation, construction effects on habitats of importance within the Site during the construction phase are considered to be minor, adverse and permanent, and could be significant at the local level (although uncertain).

Other Habitats

7.107 Large parts of the Site will be subject to construction works resulting in the loss of existing habitats. This permanent land-take of habitats (and resultant effects on fauna supported by such habitats) is discussed in the Operational Phase section below. This section relates to effects during the construction phase, which are largely temporary in nature.

7.108 Retained habitats of importance within the Site including other woodland, species-rich grassland, hedgerows and tree lines, and ponds which may be subject to potential effects such as dust deposition and damage to trees from compaction or other damage from construction machinery or vehicles. Topsoil stripping and movement undertaken for construction could also result in degradation of the ponds and watercourses within and adjacent to the Site.

7.109 As such, prior to mitigation, construction effects on habitats of importance within the Site are considered to be minor, adverse and medium-term, and could be significant at the local level (although uncertain).

Faunal Species

<u>Foraging and Commuting Bats</u>

7.110 The Site is considered to be of district level importance for foraging and commuting bats, with low-moderate levels of activity by at least seven species (or species groups) recorded during the surveys. Full details are provided with the Ecological Baseline Appraisal (Appendix 7.1).

7.111 Foraging and commuting bats could be affected during the construction phase of the Development by lighting of construction areas. However, such effects would only be for the duration of the construction phase, and the requirement for lighting during construction works is expected to be relatively minimal given the general restrictions on working to daylight hours. Further, lighting requirements are likely to be mostly during the winter months when bats are hibernating and less likely to be using these habitats, whilst the main habitats of value to foraging and commuting bats are located away from construction areas. Foraging and commuting bats could also be affected by noise disturbance during construction, although

this would be mostly during the day when foraging or commuting bats would be absent. Other construction effects such as airbourne pollutants are unlikely to result in a direct effect on foraging or commuting bats.

7.112 Accordingly, prior to mitigation, construction effects on foraging and commuting bats are considered to largely relate to temporary increases in lighting levels, and would be minor, adverse and short-term at a District scale and non-significant (probable).

Birds

7.113 Likely significant effects on bird species during the construction phase of the Development relate to a direct loss of active nests, resulting in a direct effect on local populations and also constituting an offence under the Wildlife and Countryside Act 1981 (as amended), which affords protection to wild birds and their eggs. In this regard, a number of trees and shrubs contained within woodland are to be removed as part of the Development. Construction activities could also result in noise and visual disturbance to nesting birds in close proximity to construction areas, albeit these effects are anticipated to be highly localised.

7.114 Accordingly, prior to mitigation, construction effects on birds are considered to be minor, adverse and short-term at a Local scale, and would be non-significant (probable).

Dormouse

7.115 Suitable habitat in the form of woodland was recorded as being present within and surrounding the Site, and dormouse was recorded widely within suitable habitats.

7.116 Removal of woodland could result in an offence under relevant domestic and European legislation.

7.117 The majority of woodland habitats are retained. However, the Development will result in the removal of small amounts of woodland to create the main Site access, secondary emergency access, and to create a SuDs feature.

7.118 Accordingly, prior to mitigation, construction effects on Dormouse are considered to be minor, adverse and long-term at a local scale, and could be significant at the local level (probable).

Great Crested Newts

7.119 A number of ponds are present at the Site and Great Crested Newt was recorded as being

present within one pond in the southern central part of the Site (**P6**). This species is also likely to use suitable terrestrial habitat present at the Site in the form of areas of wooded vegetation and rough grassland, especially in the vicinity of Pond **P6**.

7.120 This species will make use of terrestrial habitat within the vicinity of its breeding ponds, with most activity concentrated within 50m of the pond and little activity beyond a distance of 250m. As such, construction works could result in disturbance to breeding and foraging habitat and a risk of injury to any individuals present.

7.121 Such actions could result in an offence under relevant domestic and European legislation. Ponds supporting Great Crested Newts could also be at risk of hydrological changes (e.g. effects on the water table, increased siltation and contamination of surface run-off).

7.122 The majority of the habitats surrounding Pond **P6** will be retained. However, the Development will result in the temporary disturbance of terrestrial habitat within 50m of the pond to create a SuDs basin, and further losses of terrestrial habitats within 250m.

7.123 Accordingly, prior to mitigation, construction effects on Great Crested Newt are considered to be minor, adverse and short-term at a local scale, and could be significant at the local level (probable).

Reptiles

7.124 Clearance of vegetation and groundworks during site preparation within the Site has the potential to kill and/or injure individual reptiles that may be occupying the areas of suitable habitat at the time of construction works. The risk of harming reptiles is highest during the hibernation period of November to March inclusive and where groundworks occur within areas where reptiles have been found. However, the quantum of habitat loss is likely to be very low, since the majority of the field boundaries where suitable reptile habitat occurs will be retained under the Development (mostly as buffer zones to adjacent woodland).

7.125 This could result in an offence under the provisions of the Wildlife and Countryside Act (as amended), and consequently will need to be avoided and mitigated.

7.126 Accordingly, prior to mitigation, construction effects on reptiles are considered to be minor, adverse and short-term, and could be significant at the local level (probable).

Operational Phase

Statutory Designations

Ashdown Forest SAC/SPA

7.127 Ashdown Forest SAC is located approximately 2.7km north of the Site. It covers a total area of 2,716ha, located between the main settlements of East Grinstead, Crowborough and Uckfield. Ashdown Forest SPA covers the same area, together with a number of additional land areas subject to SPA designation only, totalling 3,207ha.

7.128 Ashdown Forest SAC is designated on the basis of the Annex I habitats 'Northern Atlantic wet heaths with *Erica tetralix'* and 'European dry heaths'. The Annex II species Great Crested Newt *Triturus cristatus* is also present but does not form a primary reason for site selection.

7.129 Ashdown Forest SPA is designated as it supports breeding populations of European importance of the Annex I species Dartford warbler *Sylvia undata* and Nightjar *Caprimulgus europaeus*.

7.130 A Site Improvement Plan (SIP) has been produced by Natural England in relation to Ashdown Forest SAC and SPA (dated November 2014). This identifies prioritised issues (pressures or threats) affecting the designation, which are summarised as follows:

1. Change in land management (largely relating to lack of appropriate grazing)
2. Air pollution – impact of atmospheric nitrogen deposition
3. Public access/disturbance (largely in relation to breeding birds)
4. Hydrological changes

7.131 Of these effects, items 1 (changes in land management) and 4 (hydrological changes) are unlikely to be caused by the Development and can be scoped out. The remaining effect types are considered as part of this assessment and are reported in further detail in the report to inform a Habitats Regulations Assessment (HRA), including Appropriate Assessment, which is included as Appendix 7.2.

Anthropogenic Effects

7.132 Ashdown Forest is designated as an SPA on the basis of the bird populations of European importance which are listed on Annex I of the Habitats Directive. Natural England last published the conservation objectives for Ashdown Forest SPA on 21 February 2019 where it

aims to ensure that the integrity of the designation is maintained or restored as appropriate, and ensure that the Site contributes to achieving the aims of the Wild Birds Directive 2009. The main threats to those qualifying features include disturbance by humans and their pets, recreational activities, development pressure and the loss of nesting/feeding habitats.

7.133 Under the Development, 424 residential units will be constructed on the Site, which may result in an increase in recreational pressure on the qualifying features of the Ashdown Forest SPA over and above the existing baseline.

7.134 Policy WCS12 of the Wealden Core Strategy sets out an exclusion zone of 400m for net increases in dwellings in the Delivery and Sites Allocations Development Plan Document, and requires provision of Suitable Alternative Natural Greenspace (SANG) and contributions to strategic access, management and monitoring (SAMM) at the designation for any residential development within 7km of the Ashdown Forest SPA. This ZoI had been based on visitor surveys of the Ashdown Forest, including an assessment of the origin of the visitors. The Core Strategy was subject to a High Court challenge and in 2015 in response to a Court of Appeal decision, WDC was ordered to make changes to Policy WCS12, by removing reference to the 7km zone or the specified mitigation requirements. Since this time, the draft Wealdon Local Plan (2019) which contained new re-drafted policies relating to the Ashdown Forest SPA was withdrawn in February 2019.

7.135 Nevertheless, the Development is within the 7km of the SPA which evidence shows is the zone within recreational impacts will likely require mitigation. It is therefore considered likely that the development will result in an increase in visitor pressure resulting from the Development.

7.136 Accordingly, prior to mitigation, operational effects resulting from recreational changes on Ashdown Forest SPA are considered to be minor, adverse and long-term at an International level, and are likely to be significant (near certain).

Pollution Effects (Air Quality and Dust)

7.137 A consideration of air quality is relevant as many nature conservation designations in England are sensitive to alterations in air quality. The main pollutants that could increase due to residential development of the Site are nitrogen (in the form of Nitrogen Dioxide and Ammoniacal Nitrogen) resulting from an increase road traffic associated with the Development), which has the potential to result in Nitrogen deposition on the SAC potentially increasing under the Development.

7.138 Background information on air quality in relation to Ashdown Forest SAC is available on the

Air Pollution Information System (APIS) website[44]. This indicates that ammonia and nitrogen deposition levels are above the established critical levels/loads. Detailed modelling of air quality to inform the Wealden Local Plan HRA also predicts an exceedance of the critical level for NOx across 4.61ha of the SAC, with a maximum concentration of 89.6µg/m3.

7.139 Under the Development, up to 424 residential units will be constructed on the Site. A Transport Assessment (TA) for the Development has been undertaken (and submitted in support of the planning application), to determine the number of traffic movements that are likely occur within 200m of the SAC as a result of the Development.

7.140 In summary, the TA predicts the number of daily trips (or Annual Average Daily Trips – AADT) which will be generated from the Development, on the two main roads passing within 200m of Ashdown Forest SAC, both of which are located to the north of the Development. At the A26 less than 225 AADT are predicted, whilst less than 93 AADT are predicted at the A22. This level of increase is far less than the typical threshold of 1,000 AADT that would typically trigger a potential significant effect, both alone and in-combination with effects predicted under the draft local plan HRA (now withdrawn alongside the plan).

7.141 Natural England (the government's Statutory Nature Conservation Organisation) provided a Regulation 19 consultation response to the Wealden Pre-Submission Local Plan (dated 05 October 2018). In this response, Natural England set out that *'Natural England is satisfied that it can be ascertained that the plan or project will not adversely affect the integrity of Ashdown Forest Special Area of Conservation (SAC), Lewes Downs SAC and Pevensey Levels SAC and Ramsar from air quality impacts. Natural England's advice regarding air quality is that this conclusion can be reached <u>without mitigation measures being needed</u> under the specific requirements of the Habitats Regulations'* [our emphasis]. Subsequently, the Wealden Local Plan Inspector carefully considered all evidence in respect of air quality at the examination in public in 2019. The Inspector's findings were published on 20 December 2019 and these concluded that Natural England's position was well evidenced and supported and could be relied upon.

7.142 A report has been produced to inform a Habitat Regulations Assessment of the Development proposals by the Competent Authority, which is presented separately alongside the planning application. This concludes that there are not likely to be significant air quality effects resulting from the Development.

7.143 Accordingly, prior to mitigation, operational effects resulting from air quality changes on Ashdown Forest SAC/SPA are considered to be negligible at an international level and not significant both alone and in combination with other development.

Other Effects

7.144 Other effect types to Ashdown Forest SAC/SPA are unlikely to occur, due to the distance between the Site and the designation and as such are considered to be negligible and are considered to be not significant (probable).

West Park (Uckfield) LNR

Anthropogenic Effects

7.145 The statutory designation West Park (Uckfield) LNR is located approximately 100m to the south of the Development and is designated on the basis of having a variety of habitats, including woodland, sandstone outcrops, marshland and open grassland. The designation is managed by Uckfield Town Council, with open public access, and there are several permissive paths, and boardwalks.

7.146 An increase in recreational use of West Park (Uckfield) LNR resulting from elevated levels of usage resulting from the Development has the potential to cause impacts through trampling and disturbance of vegetation, disturbance to faunal species, littering and dog fouling leading to localised eutrophication[1]. However, the designation is sufficiently removed from the Development, and separated by a road and the intervening Lake Wood, such that it is not expected that these effects would be concentrated on the designation. The provision of public open space and SANG as part of the Development (as a form of embedded mitigation) are intended to provide extensive opportunities for the public to recreate and walk dogs, such that these will be the focus of these kinds of recreation activities.

Other Effects

7.147 The immediate effects of urbanisation (such as tipping of garden waste and uncontrolled access from the Site into the designation) are unlikely to be felt given the degree of separation. Other effect types are also considered unlikely to occur.

7.148 Accordingly, operational effects on West Park (Uckfield) LNR are considered to be negligible and not significant (probable).

[1] Eutrophication: the gradual increase in the concentration of phosphorus, nitrogen, and other plant nutrients in an aging aquatic ecosystem such as a lake or other waterbody.

Non-Statutory Designations

Lake Wood LWS

Anthropogenic Effects

7.149 There is potential for negative effects from increased recreational usage of Lake Wood LWS, due to the proximity of the designation to the location of proposed residential dwellings. The designation is located immediately adjacent to the southern boundary of the Site.

7.150 Lake Wood is managed by the Woodland Trust, comprising a large man-made lake with sandstone outcrops, and is known to have aquatic ecological features (including invertebrates and micro-organisms) which are sensitive to recreational disturbance with the Lake Wood Management Plan such as those resulting from swimming and boating. The Management Plan for the Lake Wood Site[45] reports that the Site suffers from regular anti-social behaviour problems such as camping, fires, litter and vandalism. The LWS has public open access with two existing access points off Rock's Road to the south. Informal access also exists between the Lake Wood area and the southern part of the Site. There is a well-established informal track originating from the south-west corner of the Site, and a further informal access in the south-east of the Site, but neither constitute a public right of way (PRoW).

7.151 An increase in recreational use of Lake Wood LWS is considered likely as a result of the Development. Some effects, which might otherwise be expected where residential development and associated gardens back directly onto woodland areas (such as the dumping of garden waste, back-gate access to the woods and the escape of invasive plant species), will be prevented by mitigation embedded into the design of the Development, specifically the incorporation of a 15m buffer zone along the southern side of the development, separating the proposed gardens from the woodland, and the installation of a new fence along the boundary.

7.152 Development has the potential to cause impacts through disturbance to aquatic flora and fauna, trampling of vegetation, including informal access from the residential areas and dog fouling leading to localised eutrophication. Populations of protected faunal species, including Dormouse may be adversely affected from an increase in disturbance. However, as part of the Development (as embedded mitigation) it is proposed to provide a robust fence to separate the residential parts of the Development and Lake Woods, blocking the existing informal access point. This will prevent residents from accessing it, and will also help to control existing pressures resulting from the existing informal access from the Site to Lake Woods. In addition, the provision of a SANG as part of the proposals provides an alternative

visitor destination, which is likely to attract a number of visitors who will use the SANG instead of Lake Wood.

7.153 Accordingly, following a consideration of the embedded mitigation which will be included within the Development, operational effects resulting from increased recreational pressure and urbanisation on Lake Wood LWS are considered not to be significantly increased by residents living at the Development. These effects are considered to be negligible and not significant (probable).

Other Effects

7.154 Other effects, such as reductions in air quality or dust pollution, along with any other effect types are considered unlikely to be significant. Accordingly, other operational effects on West Park (Uckfield) LNR are considered to be negligible and not significant (probable).

Shortbridge Stream (including Shortbridge Stream Meadows LWS)

7.155 Shortbridge Stream is a main river located approximately 250m west of the Site, and taking flows from the minor watercourses which are located within the Site, including those that flow through Longwood Gill and Shermanreed Wood. It is a designated as a 'main river' by the Environment Agency, and is known to support populations of sea trout (*Salmo trutto trutto*). Which are a migratory fish species. The stream is classified under the Water Framework Directive as being in Moderate conditions for both biological (fish, invertebrates and macrophytes and phytobenthos combined) and physico-chemical parameters, and is in Good condition with respect to chemical quality parameters[46].

7.156 During the operational phase, there is the potential for a reduction in water quality within the receiving waterbody, resulting from pollutants occurring in surface water run-off from the Development, which may have a detrimental effect on the downstream ecosystems.

7.157 However, the drainage design (which forms embedded mitigation within the Development) allows for a series of SuDS basins which have been designed with sufficient pollution treatment capabilities so as to meet the requirements of the CIRIA SuDS Manual C753[47]. As such, surface water discharges from the Site will be fully treated and have no potential to negatively indirectly effect water quality within the Shortbridge Stream. Accordingly the effects on the Shortbridge Stream are considered to be negligible and not significant (probable).

Other Non-Statutory Designations

7.158 Butchers Wood LWS is designated for its Ancient Woodland, together with a large population of Wild Daffodil *Narcissus pseudonarcissus*, and significant sandstone outcrops of rich and interesting bryophytes. It is located approximately 35m from the proposed red line boundary on the other side of the A22, at the nearest point, although this area of the Site comprises retained scrub and woodland, with the nearest proposed residential development being approximately 150m from the LWS.

7.159 An increase in recreational use of Butcher's Wood LWS resulting from elevated levels of usage resulting from the Development has the potential to cause impacts through trampling and disturbance of vegetation, disturbance to faunal species, littering and dog fouling leading to localised eutrophication. However, the woodland is privately owned, with no vehicular access. It can be reached on foot by walking a route of approximately 600m through Lake Wood LWS and walking across the Rocks Road bridge over the A22. At this point public access is restricted to a single established public footpath heading in the direction of Park Wood.

7.160 All other designations within 2km of the Development, including Uckfield Cemetery LWS, Shortbridge Stream Meadow LWS, Budlett's Common Rocks LWS, Maresfield Churchyard LWS, and Piltdown Common LWS are well separated from the Development, with many being on privately owned land, and it is unlikely that there will be a substantial increase in visitors resulting from the Development.

7.161 Accordingly, operational effects resulting from increased recreational pressure on Other Non-statutory designations are considered to be negligible, and not significant (probable).

Ancient Woodland

Types of Impact

7.162 A number of woodlands listed on the provisional Ancient Woodland inventory are located within the proximity of the Development. There is therefore potential for indirect negative effects (deterioration) to result from a number of impact types during the operational phase, including those resulting from increased recreational usage, urbanisation effects such the eutrophication and the introduction of non-native plant species resulting from garden waste tipping, as well as changes in the floral composition of woodland resulting from changes in hydrology.

7.163 A full list of impact types is provided in Table 7.10, following Natural England and the Forestry Commission jointly published Standing Advice on Ancient Woodland and Veteran Trees[48]. The same list of potential effects to Ancient Woodland has been used to assess the operational effects.

Habitat Loss/Direct Deterioration Effects

7.164 The Development will not result in the loss of any woodland areas which are listed on Natural England's provisional inventory of Ancient Woodland. This has been achieved by the careful planning of the Development to avoid such losses, including the positioning of the proposed main access and secondary emergency access. During the operational phase, damage to roots and understory and compaction of soil within the root protection area of trees will be avoided by the provision of a 15m buffer zone to all Ancient Woodland areas, as embedded mitigation within the Development. The 15m depth figure has widespread currency as the typical depth applied for residential development adjacent to Ancient Woodland.

7.165 At the location of the proposed emergency access route to the north of the Site, a 15m buffer zone is not provided, and whilst there is no loss of ancient woodland, the road impinges on the Root Protection Area of a number of individual trees contained within woodland on either side of the proposed road. These impacts are addressed in the Construction Effects section, and will be fully mitigated by embedded mitigation by the road being formed above ground level, without any effect on the underlying woodland soil.

7.166 The pedestrian/cycle-path connection through Fir Tree Grove in the south-east of the Site has the potential to cause loss of ancient woodland along the 93.4m length which falls within the Ancient Woodland area. However the path will be constructed in the form of a boardwalk which will be elevated slightly above the existing ground level, with supporting pillars mounted on stainless steel screw piles to prevent any loss of ancient woodland (through excavation or damage to soils). A detailed design for the boardwalk is submitted with the planning application. This embedded mitigation will avoid any loss of Ancient Woodland.

7.167 Woodland ground flora, including Ancient Woodland Indicator species, is patchily present along the alignment of the boardwalk route, which would be overshaded by the proposed boardwalk and as a consequence be unlikely to survive. Further details of the ground flora present are provided in the Baseline Ecological Report (Appendix 7.1) and Fir Tree Grove Technical Note at (Appendix 7.3). In the absence of appropriate mitigation, the boardwalk would result in the overshading of woodland ground flora which includes ancient woodland indicator species. However, this amounts to a small area of effect, with approximately 297m^2 of the ground to be covered by the boardwalk (93m x 3m), only a proportion (128m^2) of which

supports Ancient Woodland indicator species such as Bluebell.

7.168 Accordingly, prior to mitigation, operational effects resulting from direct deterioration on Ancient Woodland (at Fir Tree Grove) are considered to be minor, adverse and long-term at an International level, but are likely to be non-significant (near certain).

7.169 Elsewhere, following the implementation of embedded mitigation, the effects of habitat loss and Direct damage to ancient Woodland are considered to be negligible and not significant.

Fragmentation Effects (Habitats)

7.170 All areas of currently contiguous Ancient Woodland would remain physically connected, though with one minor exception: an existing track between the northerly end of Shermanreed Wood, and the northerly fragment of Thirty Acre Wood would be upgraded to form an emergency access. The emergency access would be 3m wide and would occupy an existing gap between the Inventory woodlands of 6m wide, such that no loss of Ancient Woodland would occur (refer to Figure 3.1).

7.171 Given the nature of the gap and the proposed track upgrading works, there is no space available for the formation of an ancient woodland buffer zone. However, the very intermittent nature of the emergency access' use, the maintenance of continuous potential for woodland canopy linkage, and the avoidance of loss of ancient woodland indicates that a buffer zone would not be required in this case.

7.172 In terms of the connection between ancient and secondary woodland, the Site's main access off the A22 would interrupt the link along the A22 between Lake Wood, off-site to the southwest, and the secondary/ancient woodland mosaic along the A22. It is not considered that this would result in its deterioration due to the critical mass area it comprises. Forestry Commission guidance considers that woodlands over 5ha in size are of sufficient size to be self-sustaining, a size which is exceeded by both Lake Wood and the complex of on-site and off-site woodland to the north. The main Site access will also be formed to enable the creation of an ecological 'hop-over', with separation of the carriageways and to ensure the continuity of canopy cover habitat for nocturnal species such as dormouse and bats.

7.173 The Development is located adjacent to ancient woodland in a number of instances, where there is a potential for the reduction in semi-natural habitat:

- To the north, adjacent to Budletts Wood (W4), and Shermanreed Wood (**W5**), is an area

of SANG (which also partially sits within woodland);

- Residential units in the central part of the Development will be in the proximity of Shermanreed Wood (**W5**), Longwood Gill (**W6a**), and a fragment of Ancient Woodland forming part of Woodland adjacent to A22 (**W8**); and
- Residential units in the south of the Site will be in the proximity of Lake Wood and Fir Tree Grove, and the southern extremity of Longwood Gill (**W6a**).

7.174 In the case of the SANG area, this will essentially continue the current land-use as semi-natural habitat. In respect to those other instances where development is in close proximity to Ancient Woodland, a 15m buffer zone is provided as embedded mitigation within the Development. The 15m depth figure has widespread currency as the typical depth applied for residential development adjacent to Ancient Woodland in accordance with the Forestry Commission's and Natural England's Standing Advice. In addition to these minimum buffer zones, residential development is further and considerably set back from Ancient Woodland in ten locations due to formation of drainage basins (which are located to avoid tree root protection areas), and public open spaces.

7.175 Following consideration of the above factors, during the operational phase, the likely effect due to fragmentation on the Ancient Woodland complex, and from the loss of adjacent semi-natural habitat is considered to be negligible and not significant.

Pollution Effects (Air Quality and Dust)

7.176 Air Quality Effects resulting from increases in traffic, and effects resulting from dust generation are not expected to occur during the operational phase, since the number of vehicles will generally be very low along any particular service road within the Development.

7.177 The overall effect from air pollution and dust during the operation phases, is assessed as being negligible, and non-significant.

Hydrology and Water Pollution

7.178 Ancient woodland provides conditions for unique plant communities, with a predominance of Ancient Woodland Indicator plant species, which are associated with a lack of ground disturbance, combined with a continuity of soil conditions, including the degree of moisture within the soil. Detailed botanical surveys have been undertaken of the woodland flora as part of the current assessment which are reported at Appendix 7.1 (Baseline Ecological Appraisal).

7.179 As set out in the Natural England/Forestry Commission Standing advice, changes in hydrology are likely to be harmful, resulting in alterations to soil moisture content, with the result that the composition of plant communities could be altered. Ghyll woodlands (such as Longwood Gill and Shermanreed Wood, which surround watercourses **WC1** and **WC2** are considered to be particularly sensitive to such changes.

7.180 The Development has the potential to cause changes in the hydrology of the woodlands primarily by changing the quantity and quality of water entering the woodland streams. These are most likely to arise from the substitution of a natural surface water drainage regime (where water seeps diffusely into watercourses) to an artificial one in which attenuation ponds are used to collect surface water and are then discharged to the watercourses through various point sources. Surface water drainage catchments for residential development which lie immediately up-stream of Ancient Woodland receptors are those most likely to result in change. In this case, some of the residential areas proposed in the southern part of field (**SI3**) have surface water catchments which drain towards Longwood Gill, whilst some of the land proposed for residential development in the northern part of field **SI3** has catchments which drain towards both Longwood Gill and Shermanreed Wood.

7.181 A drainage strategy has been developed collaboratively between the project drainage consultants, ecologists and arboriculturists for the Development which will replicate the natural inflow of surface water into these watercourses. The drainage strategy (Appendix 8.1) allows for the provision of a relatively large number of separate attenuation basins, carefully positioned to allow inflow into the woodland ghylls in a controlled manner, with inflows making best use of existing flank incision features (natural channels entering the main ghyll) where these exist. Inflow from SuDS features would occur at 8 points into the watercourse at Longwood Gill, and a further 3 to Shermanreed Wood. Flow control devices located at the downstream end of the SuDS feature would be used to restrict runoff into a short swale.

7.182 In turn the swales would be aligned with the natural incisions to create a seamless flowpath into the brooks. Appropriate trenchless technologies (such as directional drilling or laser-guided auger bore) will be used to insert the pipe connections where necessary within the Ancient woodland, and pre-fabricated headwalls used (if necessary) where an inflow is proposed within the area of Ancient Woodland. The method would not require excavation in the form of a trench, reception pit, nor for the installation of the headwall which would be pinned to the woodland floor.

7.183 Further details of how the drainage strategy has taken account of Ancient Woodland sensitivities is provided in Chapter 8 Water Resources and Flood Risk of the ES.

7.184 These drainage proposals will result in the attenuation of surface water flow rates (which will be limited to the natural greenfield run-off rate).

7.185 Following the implementation of these measures, no change the existing hydrology is expected such that neither loss nor deterioration of ancient woodland would occur.

7.186 Chemicals, such as hydrocarbon drippage and de-icing salt, that enter into existing inflows, or that become inclusions in new inflows (e.g. run-off from parking courts), can toxify the habitat in multiple ways.

7.187 Quality of water entering the adjacent ancient woodland areas will be maintained as part of embedded mitigation incorporated within the Development - specifically through the implementation of a SuDS strategy with attenuation ponds which will buffer flows prior to their entry into woodland watercourses.

7.188 The SuDs drainage system has been specified so it performs to the relevant treatment standard so as to ensure the quality of water discharged is 'clean' and acceptable, following the pollution hazard index approach contained with CIRIA's 'The SuDS Manual'. Further assessment of pollution hazards is provided in section 4.35-4.39 of the Flood Risk Assessment (FRA) carried out for the Development (Appendix 8.1).

7.189 Accordingly, following the implementation of the drainage strategy (as embedded mitigation) operational effects resulting from changes in hydrology on Ancient Woodland are considered to be negligible, and not significant.

Anthropogenic Effects (Recreational Pressure)

7.190 There is potential for negative effects to arise from increased recreational usage of areas of Ancient Woodland which are located within the Site, and off-site in its surroundings, such as effects caused by trampling, den building, and dog fouling leading to localised eutrophication.

7.191 Part of Budletts Wood – West (**W4c-e**), Longwood Gill (**W6**), Shermanreed Wood (**W5**), Copse Surrounding Pond P6 (**W6a**), Woodland Adjacent to A22 (north) (**W7**) and part of Woodland adjacent to A22 – south (**W8**) are located within the immediate proximity of residential units. These woodlands are privately owned and not Open Access Land under the Countryside and Rights of Way Act 2000. Neither are there any PRoW across them. Nevertheless, it is evident that many parts of the woodlands are subject to a degree of current use by existing residents for recreation with the presence of informal paths throughout these

areas. Budletts Wood (West) and the northern part of Shermanreed Wood are primarily visited, with the remaining woodlands experiencing less frequent use.

7.192 Outside of the Development, there are a number of further areas of Ancient Woodland, including Lake Wood, Budletts Wood – East, and further woodland forming Parts of Budletts Wood – West where some existing recreational use also takes place. Recreational effects on Lake Wood are considered separately within Paragraphs 7.152-157 above.

7.193 In terms of Longwood Gill the topography of the woodland, taking the form of a steep-sided ghyll with very little opportunity for safe access, largely precludes recreational usage. Similarly, woodland within Copse Surrounding Pond **P6** is located on steeply sloping banks largely precluding access. Other woodland areas are well removed from existing residential dwellings and experience little use because of their relative isolation, or the presence of alternative informal paths in the open fields adjacent.

7.194 In the absence of mitigation, pressure from increased recreational use is expected to be greatest where woodlands are closest to the proposed residential areas, for example Longwood Gill and Shermanreed Wood. That said the topography of these woodlands (Longwood Gill is steeply incised and Shermanreed Gill has deep former iron ore pits) and the relative absence of well used paths within them for the most part, is such that effects may not manifest themselves. It is noted that these are also woodlands with elevated numbers of Ancient Woodland Indicator species and hence may be of increased sensitivity.

7.195 The SANG proposals which form part of the Development utilise some areas of Ancient Woodland within the Site, which are considered to be less sensitive to disturbance, including the northern parts of Shermanreed Wood, part of Budlett's Wood – West, and parts of Woodland adjacent to the A22 (South). Within these areas it is proposed to formalise the existing informal pathways, and to create a small length of new path with some forming part of a proposed circular walk, and others being used to provide secondary connecting pedestrian routes.

7.196 Other areas of woodland are considered to less susceptible to recreational pressure, either as result of having higher levels of baseline recreational use (and hence existing ecological value), or because they have lower ecological value for natural reasons.

7.197 As part of the Development, all Ancient Woodland areas will be provided with a 15m buffer zone, within which areas of semi-natural habitats will be allowed to develop in all or part of the buffer, and areas of which will also be planted with native woodland and scrub planting. This will prevent access directly from residential areas into the surrounding woodlands. These

buffer zones have been designed to conform to the current Natural England/Forestry Commission standing advice, including the following features:

- They contain a mixture of woodland together with other semi-natural habitats such as scrub and grassland;
- Any SuDS contained avoid the root protection area of trees within the adjacent woodland.
- Aside from SuDS all ground levels will remain unaffected (with the exception of one location at Fir Tree Grove – see paragraph 7.191 below).
- Fences will be provided on the woodland boundary where required, to prevent access from the buffer zones into the adjacent woodland.

7.198 In one location (on the southern boundary of Fir Tree Grove), it will be necessary to raise the existing ground levels sufficiently to support the boardwalk at its eastern end outside of the ancient woodland. An area of ground filling will therefore be necessary within the Ancient Woodland buffer zone. However, at this location there is significant grade separation with the Ancient Woodland and area to be raised, provided by the sandstone boulder outcrop which is present. This effectively ensures that there are no effects on tree roots within the woodland.

7.199 Following the implementation of embedded mitigation in the form of buffer zones, operational effects resulting from increased recreational pressure on Ancient Woodland within and surrounding the Site, are considered to be negligible and non-significant (probable).

Anthropogenic Effects (Urbanisation)

7.200 The proximity of woodland to residents houses and gardens means that there is a risk of adverse effects from urbanisation, such as back garden extensions, gates being introduced in garden fences to enable direct access to the woodland, damage from polluted run-off and the introduction of non-native plant species resulting from garden waste tipping. However, a minimum 15m buffer zone between proposed residential development and Ancient Woodland, has been included within the Development Masterplan (in some cases these buffer zones are considerably wider), which will effectively avoid the risk of these impacts occurring, as residential properties will not back onto the woodland areas.

7.201 Taking this embedded mitigation into account, it is considered that the effects of urbanisation on Ancient Woodland within and surrounding the Site, are considered to be negligible and not significant.

Lighting Effects

7.202 During the operational phase, there is the potential for adverse effects to arise from an increase in light pollution, to faunal species which might be using them. These effects are considered fully in the relevant sections below.

Veteran Trees

7.203 Within the jointly published Forestry Commission and Natural England Standing Advice, the list of potential direct impacts for veteran trees is the same as that for ancient woodland, as set out in Table 7.10.

7.204 However, all veteran trees stand either within the Inventory woodland of Shermanreed Wood (**W5**), within the woodland at Fir Tree Grove (**W9**) or in the existing grassland area which will be retained undeveloped as SANG (refer to the Illustrative Masterplan (Figure 3.1)). A single tree (7041 - a veteran beech) stands outside the protection of retained woodland and would be provided with a 12.75m diameter buffer zone (as recommended by the Standing Advice), which would be safeguarded by the erection of permanent tree protection fencing. This would be inherent within the design of the Development.

7.205 As such, effects on Veteran Trees during the operational phase are considered to be negligible and non-significant.

Other Woodland

<u>Habitat Loss/Direct Damage</u>

7.206 The Development will result in the loss of approximately 0.54ha of secondary deciduous (non-ancient) woodland, as described below:

- 0.12ha (15m x 80m) of woodland area **W8c**, to create the proposed main Site access from the A22;
- 0.04ha (7m x 55m) within area **W7**, to create the proposed secondary emergency access and pedestrian link; and
- 0.38ha of secondary deciduous woodland (woodland area **W5b**) to create a proposed SuDS feature. This is an area of young mixed woodland.

7.207 The Development also includes for the provision of approximately 2ha of new woodland planting, which will be located within the proposed SANG and within the open space areas

surrounding the Site, including proposed green corridors and Ancient Woodland buffer zones. There will be an approximately four-fold increase in the total amount of woodland within the Development, compared with the existing baseline. Whilst these woodland areas will take time to mature and develop their full ecological functionality, there will be a significant long-term increase in this habitat type.

7.208 Following the planting of new woodland areas, the impacts of woodland loss/gain are considered to be moderate, beneficial and long-term, which are significant (near-certain).

Moderately Species-Rich Grassland (off Snatts Road)

Habitat Loss and Deterioration/Improvement

7.209 The Development will result in the loss of approximately 0.06ha of moderately species-rich grassland habitat within the area identified as SI4 on Plan 5719/ECO3 of the Baseline Ecological Appraisal at Appendix 7.1, to create a proposed car-park off Snatts Road, which will serve the SANG.

7.210 A full description of the grassland is provided in Appendix 7.1. As a whole it is currently lacking management and is in poor condition, resulting from the invasion of scrub, rank species of grass, and taller sedges, which are almost certain to result in the overall decline, and ultimately loss of the ecological interest which is present.

7.211 To minimise the impacts of the proposed car-park, it has been located close to an existing informal access point on Snatts Road, which is currently a particularly heavily degraded section, comprising worn pathways, together with areas of Bramble scrub, Bracken, and grassland of a reduced species richness. This effectively reduces the impact on the grassland.

7.212 Nevertheless, in the absence of any mitigation, the impacts on the Moderately Species-rich Grassland are considered to be minor, adverse and long-term, which are significant (near-certain).

Sandstone Outcrops - Lower Plant Communities

7.213 At one point, the route of the proposed boardwalk passes across a sandstone outcrops in the vicinity of Fir Tree Grove which support communities of bryophytes and lichens. Parts of the outcrops will be covered by materials (soils etc.) where it is necessary to create a ramp which will allow a suitable gradient to be achieved. Similar outcrops in the vicinity of the Site (such as those at Lake Woods and elsewhere) are known to support nationally important communities of lower plants, and as such a specialist survey and assessment of the lower plant communities at Fir Tree Grove was carried out. The results of these surveys are presented as an Appendix to the Ecological Baseline report (Appendix 7.1).

7.214 All species recorded were relatively common, and none were considered Nationally Scarce, nor scarce in Sussex. Lichens on rock were very limited (again with no notable species recorded), but some notable species were recorded on several large trees near Chicory Cottage. These trees are retained. Those plant communities which are affected are considered to be of a Site level of importance at most, and are not considered to be a sensitive receptor.

As such, the effects on these lower plant communities are considered to be negligible and non-significant, and no further mitigation is considered to be necessary

Native Hedgerows and Tree Lines

7.215 Both of the significant linear features within the Site (Hedgerow **H1** and Tree Line **TL1**) will be fully retained as part of the Development.

7.216 In addition, approximately 1.5km of new tree lines are proposed within the streetscape of the residential Development areas, a large proportion of which will be native, whilst within the SANG 130m of mature native hedgerow with standard Oak trees will be created.

7.217 Following the implementation of new linear planting proposals, the impacts on Native Hedgerows and Tree Lines are considered to be minor, beneficial and long-term, which are significant (near-certain).

Ponds

7.218 The operational Development will not directly affect any of the existing ponds within the Site, which are all situated within woodland, and well buffered from the proposed residential Development. A number are located on existing watercourses (such as Pond **P2**), whilst others are located where springs emerge at the head woodland ghylls (such as Pond **P4**), and the current condition of the ponds is generally very poor. A number of opportunities to restore ponds are detailed in the SANG/woodland management plan, such as the thinning of surrounding trees to allow more light to penetrate and encourage the growth of aquatic plants.

7.219 Three additional ponds (two located within proposed attenuation ponds, and one separate clay-lined pond), will also be created in the vicinity of Pond **P6**. As well as serving to increase the amount of available breeding habitat for Great Crested Newts, these will also have an inherent value for other species of flora and fauna.

7.220 Following the implementation of pond restoration, the impacts on Ponds are considered to be minor, beneficial and long-term, which are significant (near-certain).

Watercourses

7.221 All the watercourses within the Site, which are identified as WC1-3 on plan 5719/ECO3 within Appendix 7.1 are located within a woodland setting and will be fully retained as part of the

Development. The potential changes to the hydrological regime of the watercourses within the Site resulting from changes to Site drainage (such as those relating to changes to impermeable surfaces), are discussed further in the Ancient Woodland section above, due to the interdependence of the two features. There is also the potential for increased sediment input, and the risk of pollution from oil residues and sediments from vehicles and use of household and garden chemicals. However, given that all watercourses will be well buffered from the residential Development, and that attenuation ponds will be provided with a suitable treatment capacity, the potential for negative impacts is far reduced. Appropriate treatment will be incorporated into the drainage system to ensure that the quality of water discharged is acceptable following the pollution hazard index approach contained with CIRIA's 'The SuDS Manual'. Further assessment of pollution hazards is provided in the FRA carried out for the Development (Appendix 8.1).

7.222 The effects to watercourses within the Site are therefore considered to be negligible and not significant.

Bats

7.223 The Site is considered to support low to moderate levels of foraging and commuting bat activity, with at least seven species (or species groups) recorded during the course of the survey work, as reported in Appendix 7.1.

7.224 Whilst large areas of habitat will be affected by the Development, this largely comprises open species-poor semi-improved grassland which is of relatively low value to foraging and commuting bats (with woodland edge and hedgerows preferred), whilst a network or proposed green infrastructure corridors will be retained through and around the built Development, and large areas of habitat will be retained within the north of the Site. However, small areas of woody vegetation will be lost to the Development, resulting in minor losses of suitable foraging and commuting habitat. Furthermore, bat species may be affected by disturbance associated with the Development, notably as a result of light spill into areas used by foraging and commuting bats.

7.225 With regards to lighting in particular, effects vary between species, with some bat species such as Common Pipistrelle and Soprano Pipistrelle able to cope with relatively high light levels (of up to 14 lux) (Fure, 2006)[49] whilst species such as Noctule are known to utilise lights as a foraging focus for insects attracted to lights (BCT and ILE, 2009)[50]. However, many bat species (particularly late emerging species such as Brown Long-eared and Myotis bats) will avoid lit areas, and attraction of insects to lit areas can result in adjacent habitats supporting reduced numbers of insects, further impacting on the ability of bats being able to

feed.

7.226 Common Pipistrelle and Soprano Pipistrelle were most frequently recorded, with sustained foraging activity by a moderate number of bats throughout the Site, particularly along the watercourses and woodland edges. Given these species are relatively tolerant of lighting, bats are likely to continue to forage and commute across the site using gardens and new green corridors to be established as part of the Development.

7.227 The occurrence of light sensitive species such as *Myotis* sp. and Barbastelle were recorded only very occasionally during surveys, such that the Development is unlikely to result in any significant effect on local populations of these species.

7.228 Bats may also be at risk of traffic collisions where roads are located across commuting routes. However, given that roads will be subject to speed restrictions to 30mph or lower, at these speeds bats can effectively avoid collisions.

7.229 Overall therefore, largely as a result of habitat losses and increased light levels in the southern part of the Site, effects on foraging and commuting bats from the Development prior to mitigation are considered to be minor-moderate, adverse and long-term, and could be significant at the district level (uncertain).

Dormouse

7.230 Dormouse nest tube surveys recorded the presence of Dormouse in a number of the woodland compartments within and around the Site, including within woodland adjacent to A22 (**W8**), within the clearing in Budletts Wood (**W4c**), within Longwood Gill (**W6**), and on margins of Lake Wood the South of the Site. Animals were recorded in four instances, and six additional nests were identified which were considered likely to have been made by Dormouse. No animals in breeding condition, or juveniles were found. It is considered that there is no reason why breeding should not be taking place, although many of the woodland areas are lacking the habitat structure that would provide optimal conditions for the species.

7.231 The distribution of Dormice within the Site suggests that the population is spread through the woodland areas in the south and western parts of the Site. Although individual animals are not likely to move far within any given season, woodland along the A22 woodland corridor is likely to be of some importance to ensure continuity of habitat and dispersal of animals. As well as providing habitat in its own right it connects larger woodland areas to the south (Lake Wood) and north (Budletts Wood).

7.232 Dormouse are susceptible to losses of woodland, which would result in a reduced the amount of habitat for breeding and foraging, and the carrying capacity present to support the population. A small quantum of woodland habitat will be lost to the Development in the short term (approximately 0.5ha in total), although this is compensated for by approximately 2ha of new woodland planting which is included within the Development, and will be strategically placed adjacent to existing dormouse habitat to ensure its future functionality.

7.233 There is also a risk that Dormice will be adversely affected by disturbance from operational lighting, and through the severance of woodland preventing dispersal in the short and long term, especially along the linear woodland formed by woodland areas **W7** and **W8**.

7.234 Dormice, do not generally suffer from predation by domestic pets. Reference to the Dormouse Conservation Handbook[51] finds that it states that dormice "*are rarely caught…. by predators such as cats*" and as such cat predation is not considered to cause a significant impact on populations. This finding is supported by work undertaken by Woods et al (2003)[52] looking at predation of wildlife by domestic cats which found that Dormice made up only 0.084% of prey items brought back to houses by domestic cats.

7.235 In summary, prior to mitigation, operational effects are likely to result from light disturbance, and from habitat fragmentation (but not from pet predation or woodland loss/gain), are considered to be minor-moderate, adverse and long-term, and could be significant at the local level (uncertain).

Great Crested Newt

7.236 Survey work recorded the presence of a medium population of Great Crested Newt (GCN) within pond **P6,** which is located within the central southern part of the Site. The pond is relatively isolated and currently in poor condition, remaining dry for a large part of the year. A small population of GCN was also recorded in pond P1, which is located within retained woodland in the far north of the Site.

7.237 This species will make use of terrestrial habitat within the vicinity of its breeding ponds, with most activity concentrated within 50m of the pond and little activity beyond a distance of 250m. As such, loss terrestrial habitat resource could have a negative effect on the population of Great Crested Newts.

7.238 On a long-term basis, all terrestrial habitats within a 50m radius of Pond **P6** will be retained and enhanced. There will be a small temporary loss/disturbance of terrestrial habitat (approximately 0.12ha) to create a SuDs basin within this area, although following

establishment, this will also become suitable terrestrial habitat. Three new permanent ponds will also be created as part of the Development (two within the proposed SuDS), designed to provide additional breeding habitats for the species.

7.239 Within the wider 50-250m zone, approximately 6ha of low-grade terrestrial habitat (species-poor managed grassland) will be lost to residential Development, although hedgerow **H1** will be retained, which is expected to provide a key habitat corridor.

7.240 Several additional green corridors have been proposed within the development layout, which will be enhanced to provide additional connections to surrounding blocks of suitable woodland habitats on the margins of the Site.

7.241 Following receipt of planning permission, a Natural England European Protected Species Licence for development will be required with respect to Great Crested Newt. The application will set out all proposed mitigation and enhancement measures (for both the construction and operational phase), which are considered to be embedded mitigation. These will include the details of pond creation and enhancement.

7.242 In summary, once the embedded mitigation has been taken into account (secured through a Natural England licence), operational effects are likely to result from habitat loss from on Great Crested Newt, are considered to be negligible and non-significant.

Reptiles

7.243 Low populations of three species of reptiles (Slow-worm, Common Lizard and Grass Snake) have been identified, which are confined largely to longer sward grassland on edges of fields SI1, SI3 and SI4. The majority of these habitats will be retained within proposed buffer zones. Nevertheless, in a number of instances the Development will result in the loss of small amounts of habitat recorded to support reptiles, as follows;

- A strip of grassland on the western edge of field **SI3** required to facilitate the main Site access;
- Small amounts of grassland within **SI4** (adjacent to Snatts Road) required to create the SANG car-park and improved pathways.

7.244 As part of the Development, additional reptile habitat will be created within the proposed SANG, proposed green corridors and retained woodland buffer zones, which will be managed to include scrub and grassland to ensure that suitable conditions are in place for reptile

species.

7.245 Accordingly, following the implementation of the Development there will an overall increase in reptile habitat, the effects of which are considered to be minor, beneficial and long-term.

Mitigation Measures

Construction Phase

General Construction Safeguards

7.246 A number of potentially significant effects on Lake Wood LWS, Ancient Woodland and other retained habitats of ecological value during the construction phase have been identified, largely as a result of potential encroachment of construction activities into proposed buffer zones, dust deposition and surface run-off of contaminants or silt. As such, it is proposed that standard mitigation measures are put in place during the construction phase, to include the following:

- Prior to works commencing, a full Site investigation will be undertaken to identify any potential sources of contamination and advise on appropriate safeguards to be implemented during construction works;
- Erection of tree protection fencing around retained trees, hedgerows and other woody vegetation in accordance with BS5837:2012;
- Dampening down of potential sources of dust;
- Storage of chemicals and hazardous materials in line with best practice guidelines, ensuring that they are secure, well away from the Site boundaries and cannot be accessed or knocked over by roaming animals;
- Fires should only be lit in secure compounds and not allowed to remain lit during the night; and
- Implementation of engineering safeguards as part of construction works to control surface water run-off and avoid contamination of watercourses. This could include measures such as the use of a temporary silt trap in order to form an intercept for silt and other potential pollutants.

7.247 Furthermore, a number of general safeguarding measures will be implemented in relation to faunal species:

- All contractors will be briefed prior to the construction works as to the possible presence

of protected and notable faunal species within the Site, with particular reference to the implications of legislation and licensing;

- Any trenches or deep pits within the Site that will be left open overnight will be provided with a means of escape should a Badger or other mammal enter. This could simply be in the form of a roughened plank of wood placed in the trench as a ramp to the surface. This is particularly important if the trench fills with water;
- Any trenches/pits will be inspected each morning to ensure no animals have become trapped overnight;
- The storage of topsoil or other 'soft' building materials in the Site will be given careful consideration. Badgers will readily adopt such mounds as setts. So as to avoid the adoption of any mounds, these will be kept to a minimum and will be subject to inspections by site contractors with consideration given to temporarily fencing any such mounds to exclude Badgers;
- The storage of any chemicals at the Site will be contained in such a way that they cannot be accessed or knocked over by any roaming animals;
- Fires will only be lit in secure compounds and not allowed to remain lit during the night;
- Food and litter will not to be left within the working area overnight;
- To minimise adverse effects as a result of lighting during the construction phase, temporary lighting will be minimised, wherever practical. Where required for health and safety, security or other reasons, it will be positioned so as to minimise light spill on to the watercourse corridors, hedgerows and other boundary features; and
- Disturbance from noise will be minimised by the adoption of good working practice.

7.248 It is proposed that the measures referred to in paragraphs above are detailed in a Construction Environmental Management Plan (CEMP) produced at an appropriate stage prior to works commencing. This could be secured by a planning condition.

Roosting Bats

7.249 No evidence of roosting activity was recorded within the Site during the survey work, although a number of trees with bat roosting potential are located within development areas. Where possible, such features will be accommodated within the layout at the detailed design stage, such that roosting opportunities can be maintained at the Site in the long-term.

7.250 Where identified roosting features cannot be retained, detailed surveys will be undertaken at the appropriate stage prior to construction works to confirm presence/absence of roosting bats and inform implementation of appropriate safeguarding measures (such as pre-inspection checks, soft-felling of trees or soft-stripping of features of bat roosting potential within the

pill boxes). Should any roosts be identified at this time, a European Protected Species licence may need to be sought from Natural England. It is anticipated that these further surveys will be secured through a relevant planning condition.

[redacted]

Dormouse

7.253 Having given due regard to the relevant legislative protection afforded to Dormouse, and having reviewed appropriate statutory guidance material, it is considered that a licensed approach is necessary which will provide the highest legislative safeguard for the proposed activities at the Site.

7.254 As part of this licence, in order to maintain the favourable conservation status of Dormouse within the local area, a suite of mitigation measures will be put in place as part of the Development to ensure that Dormice are safeguarded during the construction period. In accordance with best practice guidelines, this will include reasonable steps to minimise any potential impact on Dormice pre-construction, and will include phased clearance of vegetation which may include timings to avoid breeding and hibernation periods, and a series of checks to be carried out by the project ecologist. The details will be set out in a Dormouse Mitigation Strategy, which will be provided to inform of each phase of the Development, and which will accompany the European Protected Species Licence (EPSL) application. It is anticipated that the dormouse mitigation strategy will be secured through a suitable planning condition.

Birds

7.255 To avoid an offence under the Wildlife and Countryside Act 1981, the potential loss of active nests during construction will be avoided by either undertaking clearance of potential bird nesting habitat outside of the bird nesting season (March to August inclusive) or, if necessary, preceding any clearance with an inspection by a suitably qualified ecologist. Any nests

identified will be cordoned off and protected until they cease to be active. Disturbance from noise will be minimised by the adoption of good working practice, such as restricted hours of working and noise-reducing construction measures.

Great Crested Newt

7.256 Construction effects have been identified in relation to Great Crested Newt prior to mitigation, specifically in relation to the population of Great Crested Newts present in Pond **P6**. Having given due regard to the relevant legislative protection afforded to Great Crested Newts, and having reviewed appropriate statutory guidance material, it is considered that a licensed approach is necessary which will provide the highest legislative safeguard for the proposed activities at the Site.

7.257 As part of this licence, in order to maintain the favourable conservation status of Great Crested Newts within the local area, a suite of mitigation measures will be put in place under the Development to ensure that Great Crested Newt are safeguarded during the construction period. In accordance with best practice guidelines, this will include reasonable steps to minimise any potential impact on Great Crested Newts pre-construction. This will include the provision of temporary amphibian fencing and translocation of animals from the areas directly affected by development within a 250m zone of Pond **P6**, with animals being moved into retained habitats within the vicinity of the pond. These habitats will also be enhanced in advance of construction works, to increase their carrying capacity, through a variety of means, including the creation of new ponds, and the provision of new planting and creation of new hibernacula and refugia. To prevent mortality of GCNs from falling into roadside gully pots, it is proposed that gully pots and associated drain covers are off-set from the kerbs.

7.258 The details will be set out in a Great Crested Mitigation Strategy, which will be provided to inform of each phase of development, and which will accompany the EPSL application. It is anticipated that the Great Crested Newt mitigation strategy will be secured through a suitable planning condition.

Reptiles

7.259 The majority of reptile habitats will be retained within proposed buffer zones. Nevertheless, in a number of instances, construction works will result in the loss of habitat recorded to support reptiles, as follows;

- Loss of a small amount of grassland on the western edge of field SI3 required to facilitate

the main site access;

- Loss of a small amount of grassland at the eastern boundary of SI4 (adjacent to Snatts Road) required to create the SANG carpark.

7.260 In these areas, and any other similar areas of habitat which will be lost, measures will be implemented to avoid killing or injury of reptile species.

7.261 In accordance with best practice guidelines, this will include reasonable steps to minimise any potential impact on reptiles pre-construction. This will include displacement of reptiles through gradual removal of habitats followed by the implementation of destructive searches. This will involve a pre-works contractor briefing and cutting of vegetation using hand tools under weather conditions suitable for reptiles to be active, in a two-stage process (i.e. to around 15 cm, then to ground level) to encourage reptiles to disperse towards retained habitats.

7.262 Retained habitats will also be enhanced in advance of construction works, to increase their carrying capacity, through a variety of means, including the creation of log piles, hibernacula and refugia, and the provision of new planting to create additional habitat edges which can be used by reptiles for basking and shelter.

Non-native Invasive Plant Species

7.263 A number of non-native plant species have been recorded during the ecological surveys completed to assess the effects of the Development, although none have been identified which would be directly affected by proposed construction activities. Nevertheless, an update survey in regard to invasive species will be undertaken prior to works commencing. If necessary, a control strategy will be prepared before any works commence in the vicinity of the affected area so as to ensure the species is not spread during the construction phase. This is likely to involve treatment of any stands before any works commence and works to be carried out under a specific method statement to avoid any contamination during works.

Operational Phase

Design of the Built Environment

7.264 A number of measures will be implemented as part of the detailed design of the built development to minimise adverse effects on habitats during the operational phase. This will include:

- The Outline layout of housing areas adjacent to retained habitats have been designed so that houses face out onto open space areas, providing visual surveillance and avoiding gardens backing onto habitats, preventing issues such as informal garden extensions and fly tipping. This principle will be carried forward to the detailed design phase, and will be further reinforced by provision of a hard edge to the built development where practical, in the form of roads or footpaths;
- A SuDS scheme will be implemented to manage run-off from built development areas, comprising a network of swales, soakaways, infiltration trenches and balancing ponds. Further detail is provided at Chapter 12. The use of SuDS features will help to reduce the potential effect of point source pollution incidents from garden chemicals and/or domestic chemicals. The proposed attenuation basins, swales and permeable paving provide sufficient treatment for both the major access roads, as well as roof run-off and residential access roads. Attenuation areas are also proposed to control surface water runoff rates to the required greenfield rate and to attenuate pollutants prior to discharge into the wider surface water network;
- Crossings of watercourse corridors by roads has been avoided in the Outline proposals, which is a principle that will be carried through to the detailed design stage.
- To maintain connectivity across the Site for ground-based fauna such as Hedgehogs, other small mammals, amphibians and reptiles, boundary treatment solutions such as fence cut-outs, missing bricks at wall bases, or landscaped boundaries (e.g. hedgerows) will be employed within areas of built development.

Sensitive Lighting Design

7.265 To minimise effects on foraging and commuting bats and Dormice (as well as other nocturnal species) as a result of light spill, a Dark Zones Plan (Richards Urban Design Plan Ref. 1307.07) is submitted separately with the planning application. This sets out the parameters for a series of dark zones and corridors which will provided throughout the Development. In line with current best practice, primary dark zones will aim to achieve light levels of 0.2 lux horizontally and 0.4 lux vertically wherever practical, and will be applied to all Ancient Woodland areas, and a central band of woodland along the A22, whilst in secondary zones light will be controlled to a maximum of 1 lux horizontally at ground level. These areas will include the proposed green corridors within the development and any woodland buffer zones.

7.266 Further lighting design for the Development will be prepared at the detailed design stage incorporating measures to reduce the effects of lighting on wildlife. This will be reviewed by a suitably qualified ecologist to ensure that effects on sensitive habitats are avoided.

Measures which will be incorporated into the lighting design include:

- No lighting to be used within the SANG and other woodland areas (however, see para 7.269), whilst the lighting design should avoid light spill into the area, with the use of screening vegetation as required;
- Avoidance of lighting where practical within green infrastructure areas, particularly along boundary habitats and watercourse corridors;
- Where lighting is required, consideration will be given to the use of low-level bollard lighting, wayfinding studs or handrail lighting, avoiding upward light spill into tree canopies. Otherwise, directional lighting will be implemented, with the use of louvres, shields or hoods as required to avoid light spill away from features to be lit;
- Where road crossings are proposed through green infrastructure areas, consideration will be given to spacing of lighting columns or other lighting control measures to maintain a central dark or low light area;
- LED lights will be used where appropriate, as these have a lower attraction to insects; and
- In addition, the location and orientation of buildings, the proposed landscape treatment and the retention and enhancement of the existing vegetation within the Site will further act as secondary mitigation to screen and soften the effects of installed artificial light sources. Where necessary, further shrub and tree planting will be provided to create screening against lighting from roads and residential areas.

7.267 Since proposals for the Fir Tree Grove form a detailed element of the planning application, a lighting strategy has been carefully developed to accompany the proposed boardwalk design in this area. This has followed the principles of minimising lighting intensity and duration, minimising horizonal and vertical light spill and maintaining a continuous dark tree canopy linkage above the boardwalk. Lighting will comprise low intensity lighting mounted on one side of the boardwalk. Mitigation for light spill is built into the design by the inclusion of solid panelling on the side opposite the lighting units, and through the use of warm colour temperature lamps (2700k). Modelling of predicted light levels (in both the horizontal and vertical planes) has been carried out, the results of which are presented in a standalone report (Downlands Lighting Impact Assessment – Lighting Bee, May 2022). The modelling demonstrates that light spill will be minimal - limited to less than 0.2 lux horizontally at ground level either side of the boardwalk, and 0.4 lux vertically at 1.2m distance from the edge of the boardwalk either side.

Ashdown Forest SPA/SAC - Provision of Sustainable Alternative Natural Greenspace (SANG)

7.268 To mitigate the effects of recreational disturbance on Ashdown Forest SPA, it is proposed to create a bespoke SANG, comprising 18.1ha of public open space. Even after allowing for a precautionary 10% reduction in capacity to allow for existing public use – as set out in the accompanying Downlands SANG and Woodland Management Plan - this represents a significant over-provision for the requirements of the Development.

7.269 Based on the 8ha per 1000 population standard as set out by Natural England's SANG guidelines, the required SANG provision for the Development would be a minimum of 8.14ha (given an estimated population of 1,018 people based on 424 dwellings at an average occupancy rate of 2.4 persons per dwelling). However, in order to provide a 2.3km circular walk within the SANG extension itself, it is intended that a larger area of open space will be established as SANG, totalling 18.1ha. This provides sufficient capacity for 2,036 residents (or 942 residential units).

7.270 There is existing informal public access available into the majority of SANG (primarily from Snatts Road to the south) but there is only a relatively low level of current use by the public. As such the capacity of the SANG is considered unaffected, but nonetheless taking a precautionary approach, the capacity of the SANG has been discounted to account for this existing use. Consequently, the residual capacity available for recreational use within the area of SANG has been discounted by 10%, with its functional area calculated to be the equivalent of 16.29ha. Under Natural England guidance this equates to a capacity of 2,036 residents (or 848 residential units).

7.271 The SANG will be served by two proposed car-parks, namely one off Snatts Road, and one within the southern development parcel, and will provide a circular walk of 2.3km length, together with the provision of a range of habitat creation and enhancement, intended to meet the qualifying criteria set out by Natural England. These will include:

- Provision of a range of natural habitats including open grassland, varied native woodland, scrub, an orchard and areas of scattered trees.
- Appropriate use of sympathetic hard landscaping, such as the formalisation of paths and provision of benches and interpretation boards.
- Fencing of Ancient Woodland areas adjacent to the SANG to prevent pedestrians from walking into the adjacent woodland.
- Further measures to prevent straying from paths where these are routed through the ancient woodland, including brash piles on either side of the paths.

7.272 Detailed proposals for the SANG are included within a SANG and Woodland Management Plan

(submitted separately with the planning application), which also incorporates proposals for woodland management which are to be managed exclusively for nature conservation and are not included within the SANG area.

7.273 The mix of habitats and topographic variation provided by the SANG means it provides a very interesting user experience and accordingly, it is considered that it would be highly effective at attracting visits away from the SPA. The SANG will be managed and maintained in perpetuity with development related funding provided for this purpose.

7.274 Contributions will also be made to the Strategic Access Management and Monitoring (SAMM) tariff, in line with WDC's local plan policies.

7.275 The potential for negative effects have also been identified from increased recreational usage of Lake Wood LWS, due to the proximity of the designation residential dwellings. In this regard, the SANG will provide a new area of publicly accessible open space which is also expected to mitigate for the adverse effects on Lake Wood LWS, with visitors drawn to the new facility. These will comprise not only new residents but also existing users of Lake Wood who will take advantage of improved car parking at the SANG, hence providing a balancing reduction in users of Lake Wood, thereby offsetting visits which may be undertaken by new residents. A range of other incidental open spaces are also available to new residents which will serve to provide further alternative areas to utilise, avoiding visits to Lake Wood.

7.276 Following the implementation of the SANG (including the provision of new/enhanced path network within a semi-natural setting, together with car-parks, appropriate SANG signage, and dog waste bins etc.) alongside SAMM, adverse effects on the Ashdown Forest SAC/SPA's integrity resulting from increased recreational disturbance and urbanisation are avoided. Neither are there any residual effects expected to the woodlands within and surrounding the Site (including Lake Wood LWS and other areas of Ancient Woodland), resulting from the proximity of these woodlands to residential housing.

Ancient Woodland – Translocation of Ancient Woodland Vascular Plants at Fir Tree Grove (W9)

7.277 The Development will result in the loss or overshading of approximately 128m^2 of ground flora comprising patches of Ancient Woodland Vascular Plants (AWVPs), resulting from the construction of the proposed boardwalk within Fir Tree Grove (W9). Whilst the boardwalk would not cause a direct loss of ancient woodland, due to its sensitive construction method, the loss of these localised patches of ground flora may, without mitigation, constitute deterioration of the Ancient Woodland, as they represent part of the woodland ecosystem. There effects are considered to be extremely minor given the extent and shifting patterns of

ground flora which occur in any case. However, to ensure their continued survival, any affected colonies of ground flora which are within the working area will be translocated a suitable location within the same woodland, thereby wholly avoiding deterioration. Works will be subject to a Ground Flora Translocation Method Statement, which could be secured through a suitably worded planning condition.

Dormouse Mitigation

7.278 Effects have been identified on Dormouse prior to mitigation, largely in relation to loss of woodland habitat, and severance of woodland connectivity, such that implementation of mitigation will be required, to be carried out under licence from Natural England. Details of the proposed mitigation will be set out in a Dormouse Mitigation Strategy, together with consideration of the three derogation tests under the Conservation of Habitats and Species Regulations 2017 in relation to European Protected Species (EPS).

7.279 The mitigation strategy will seek to fully retain the Dormouse population within the Site, as well as bringing forward substantial habitat enhancements. In summary, this will include:

1. Planting of 1.7ha of new woodland and 0.8ha of new scrub habitat, in the proposed SANG, connected to Budletts Wood (**W4**) and Shermanreed Wood (**W5**), together with an additional 0.3ha of woodland planting in buffer zones between the proposed residential development and adjacent woodlands. These are likely to provide a significant improvement in the long-term baseline for Dormouse;
2. Enhancement of existing retained woodlands to increase their suitability for Dormice, including the re-introduction of coppice regime, planting of suitable fruit and nut-bearing plants species to supplement existing food availability, and provision of dense understory planting where this is lacking;
3. The main site access has been designed to include a Dormouse crossing point, of a type which has been previously demonstrated to be acceptable to Natural England. Carriageways of the proposed access road are split to minimise the width of the crossing points, and a 4m wide central reservation will be planted with scrub planting to allow Dormouse to cross at ground level. Dropped kerbs will be provided to ensure that no barriers to movement at ground level are present, and light levels will be kept to a bare minimum, with no artificial lighting provided at these points. Standard trees will also be planted in the central reservation and on verges adjacent to the crossing point, so that in the long term arboreal connectivity of canopies will form across each of the carriageways, providing additional arboreal links;
4. Buffer zones which have been designed into the Development will mitigate for the adverse effects of light disturbance, and other lighting restrictions which are set out in the Dark

Zones Map (Plan Ref. 1309.07 - submitted separately with the application) will ensure that light levels are minimal in woodland areas;

5. Banks of thorny scrub will be provided at the woodland boundaries to deter domestic pets from entering woodland areas.

7.280 In conclusion, the proposed mitigation and enhancements will create substantial new areas of high-quality woodland habitats, which will represent a positive enhancement over the existing situation. Notably, there will be a significant gain in the overall woodland available to Dormouse.

Great Crested Newt Mitigation

7.281 Effects have been identified on Great Crested Newt prior to mitigation, largely in relation to loss of terrestrial habitat, such that implementation of mitigation will be required, to be carried out under licence from Natural England. Details of the proposed mitigation will be set out in a Great Crested Newt Mitigation Strategy, together with consideration of the three derogation tests under the Conservation of Habitats and Species Regulations 2017 in relation to EPS, given that when determining a planning application for a development which has an impact on EPS, the LPA must have regard to the derogation tests at the planning stage.

7.282 The mitigation/enhancement strategy seeks to fully retain the Great Crested Newt population within the Site, as well as bringing forward substantial habitat enhancements. In summary, this will involve:

1. Enhancement of the main existing pond (**P6**) by removing silt and leaf litter and creating a more beneficial depth profile;
2. The use of low level fencing, planting or similar to deter dogs from entering the pond P6;
3. Creation of three dedicated Great Crested Newt ponds and provision of hibernacula and refugia (which represents a significant enhancement for the species);
4. Site-wide habitat creation and enhancement works, including additional waterbodies, and habitat enhancements within woodland buffer zones and proposed green corridors; and
5. Gully pots along the edges of all service roads within 250m of pond **P6** will also be designed to prevent the entrapment of Great Crested Newts, such as off-setting them from the road edge and/or the installation of amphibian ladders.

7.283 In conclusion, the proposed mitigation and enhancements will create new areas of substantially improved aquatic breeding habitats as well as high quality terrestrial habitats, which will represent a positive enhancement over the existing situation. Notably, creation of new waterbodies (three of which will form dedicated Great Crested Newt ponds) and

enhancement of terrestrial habitat is considered to more than offset the loss of low-quality terrestrial habitat caused by the Development, whilst new green corridors proposed as part of the Development are likely to result in an increased probability for Great Crested Newt populations to link with others and form larger metapopulations.

Enhancement Measures

7.284 The National Planning Policy Framework (NPPF) encourages new developments to maximise the opportunities for biodiversity through incorporation of enhancement measures. The Development presents the opportunity to deliver ecological enhancements at the Site for the benefit of local biodiversity, thereby making a positive contribution towards the broad objectives of national conservation priorities and the Sussex BAP. Such measures will also help to offset non-significant habitat losses and other effects of the Development, helping to achieve an overall net gain in biodiversity.

7.285 Significant ecological enhancements will be provided within the proposed SANG, whilst areas of public open space within the Development will also be provided with a range of habitat and faunal enhancements.

7.286 The enhancements summarised below are considered appropriate given the context of the Site and the scale and nature of the Development.

7.287 It is proposed that such measures will be detailed in an Ecological Enhancement and Management Plan to be produced at the detailed design stage and secured by planning condition.

Habitat Creation and Management

Habitat Enhancements (Within SANG and Public Open Spaces)

7.288 The proposed SANG (measuring approximately 18.1ha) is to be provided within the northern parcel of the Site, forming a dedicated area for informal public recreation and new habitat creation, whilst additional open space areas will be provided between and within buffer zones around built Development areas, forming a network of green infrastructure corridors and within the Site totalling approximately 7ha (not including woodland and SANG). Within these areas, it is proposed that a range of habitats are created:

- Substantial native tree and shrub planting will be provided within areas of open space

across the Site, forming new blocks of woodland and shrubs, scattered wooded vegetation and treelines. This will benefit woodland species such as Song Thrush and Brown Long-eared bat;

- Tree and shrub planting will also be provided within built Development areas. Although a proportion of this is likely to include ornamental species or cultivars, species of wildlife benefit will be chosen where appropriate, providing additional resources for wildlife such as fruits or nectar;
- A new orchard will be created, providing habitats for a range of bird and invertebrate species;
- Scrub habitat will be established along existing woodland edges and within grassland areas creating scrub mosaics and forming valuable ecotone habitats for a range of wildlife, including amphibians, reptiles, small mammals and invertebrates;
- A large part of the SANG and other open grassland areas will be established as wildflower grassland, subject to a varied management regime to provide a range of sward types. Larger blocks of grassland will be managed as hay meadow, subject to cutting 2-3 times a year to promote a flower rich sward, whilst areas of rough, tussocky grassland will be established along woodland and hedgerow margins with dead stems retained in places during winter to provide a hibernation resource for invertebrates. As such, grassland areas will provide a rich habitat resource for invertebrate species, in turn providing increased foraging opportunities for wildlife including birds and bats;
- New lengths of hedgerow planting will be provided along the boundaries of green space areas and along the edges of existing woodland to create opportunities for dormice and other species and
- A SuDS scheme is to be implemented as part of the Development. In addition to the downstream water quality benefits this will provide in terms of attenuating surface run-off and capture of sediments and nutrients, a variety of wetland habitats will be provided by the proposed drainage and attenuation areas including swales and balancing ponds. Although these features will be designed and managed with flood control in mind, they will be designed to be of benefit to biodiversity where possible, incorporating measures such as shallow, sinuous margins, areas of permanent water and planting with native vegetation. Such measures will benefit a range of wetland species including birds and aquatic invertebrates and will provide 'stepping-stones' through the Development and contribute to the potential breeding resource for Great Crested Newts within the Site.

Woodland Management

7.289 A number of woodland areas located outside the Development area are currently in poor condition resulting from a lack of management, which has resulted in a lack of age structure

and diversity of woodland and presence of detrimental factors, such as the presence of non-native invasive plant species. Some of these are located within the SANG area, whilst others are outside.

7.290 An excellent opportunity therefore exists to enhance these currently unmanaged woodlands which would also serve to offset any residual adverse effects in the unlikely event any remain. The introduction of an enhanced woodland management package within areas of existing woodland areas (amounting to 21.6ha) will be brought forward in order to bring them into a favourable conservation status. These measures are set out in a separate management plan (Downlands SANG and Woodland Management Plan), and include the following:

- Introduction of coppicing regimes to areas which are suited to this technique, which will provide structure, and habitat enhancement for dormouse.
- Thinning and restocking of woodland areas lacking age structure and diversity.
- Removal and control of non-native invasive plant species where they occur.
- Creation of deadwood habitats from cut material arising from woodland management.
- Provision of fencing, management of paths and other deterrents to control public access as necessary.
- Regular monitoring of woodland to detect and control instances of littering, fly tipping and other damaging activities.

7.291 Following the implementation of these measures, woodland areas will be significantly improved in terms of their ecological functionality and resilience and will be able to withstand the additional recreational and urbanisation pressure which they may be placed under.

7.292 New woodland areas will also be provided, as part of the SANG proposals, and within Public Open Greenspace within the main residential development, which will also be brought under appropriate management to maximise the conservation gain which they contribute.

Faunal Enhancements (Within SANG and Public Open Spaces)

7.293 The above habitat creation and enhancement measures will provide benefits to a range of fauna. In addition, in order to provide specific nesting and roosting opportunities for bird and bat species, and to compensate for the loss of bird nesting habitat under the Development, it is proposed that faunal habitat features are provided in association with new buildings and open space areas:

- Bat boxes will be provided on new residential buildings and retained trees within the Site. Box specifications will be selected to be long lasting and provide benefits to Priority

Species recorded in the local area, such as Brown Long-eared Bat, Soprano Pipistrelle and Noctule;

- Nesting opportunities for birds will be provided in the form of nest boxes installed on new buildings and retained trees. Box specifications will be selected to benefit the UK Priority Species Starling and House Sparrow, and the Amber List species Swift;
- Provision of habitat piles and dedicated hibernacula will provide shelter for reptile and amphibian species; and
- Enhancements for invertebrates will be provided by creating habitat piles, using arisings from site clearance works and management.

Biodiversity Net Gain (BNG) Assessment

7.294 A Biodiversity Net Gain Assessment has been carried out as part of this planning application, which is submitted separately with the planning application. The latest Defra Metric (v3.1), has been used to quantify the Net Gain/Loss in biodiversity units which result from the Development, including any proposed habitat creation and enhancement (Ancient Woodland areas are excluded from the calculation, due to their status as Irreplaceable Habitats under the NPPF).

7.295 The BNG Assessment indicates that there will be a significant net gain in habitat biodiversity units resulting from the Development, which represents a considerable gain from the existing baseline. Further additional benefits will be provided by the proposed enhancements to the ancient woodland areas surrounding the site, which are captured separately within the metric.

7.296 In addition, it is anticipated that significant gains will flow from the enhancement of Ancient Woodlands within the Site, which are excluded from the metric.

Residual Effects

Construction

Lake Wood Local Wildlife Site (LWS)

7.297 In the absence of mitigation, minor adverse effects were predicted to occur in relation to Lake Wood LWS during construction through dust deposition and surface run-off of contaminants or silt. However, following the implementation of measures contained within the Construction Environmental Management Plan (CEMP), and the implementation of a suitable lighting strategy, the residual effect would be negligible.

Habitats

7.298 Prior to mitigation, there is a possibility of effects to occur to Ancient Woodland, Veteran Trees and other habitats within the Site and immediately adjacent. However, following the implementation of embedded mitigation measures, including the provision of buffer zones, together with further mitigation measures contained within the Construction Environmental Management Plan (CEMP), the residual effect would be negligible.

Fauna

7.299 Prior to mitigation, minor adverse effects are predicted to occur to faunal species within the Site, including bats, Dormouse, Great Crested Newt and Reptiles. In respect of bats, effects are limited to disturbance effects through lighting which are fully mitigated through the implementation of construction safeguards outlined in the CEMP, and the implementation of a suitable lighting design.

7.300 Mitigation for protected faunal species during the construction phase (Dormouse, Great Crested Newts and reptiles), will be provided in the form of suitable mitigation strategies - one for each species/species group. In the case of European protected species (Dormouse and Great Crested Newt), a European Protected Species licence application will also need to be made. Following the implementation of these measures, any residual effects relating to these species are considered to be negligible and non-significant.

7.301 Following implementation of the mitigation measures set out above all adverse construction and operation effects are considered to be negligible and non-significant. As such, there is no identified requirement for compensation measures for these effects.

Completed Development

Designations

7.302 Prior to mitigation, minor adverse effects were predicted to occur at an International Level in respect to Ashdown Forest SPA, with regards to Recreational Disturbance resulting from increased visitor pressure, which has the potential to have a cumulative effect combined with other schemes. However, following the implementation of mitigation measures in the form of the on-site SANG and SAMMS contributions, these effects are fully mitigated within the proposals. Residual effects are therefore considered to be negligible and non-significant.

Habitats – Ancient Woodland

7.303 Loss and deterioration effects to ancient woodland have been avoided though the embedded and secondary mitigation provided through the design of the Development, including the provision of 15m buffer zones around the ancient woodland, and through the careful design of drainage solutions which might otherwise result in hydrological changes. At one location (the proposed boardwalk within Fir Tree Grove), direct deterioration was predicted to occur resulting from the localised loss of woodland ground flora. However, following the translocation of the plants concerned, and associated monitoring, the residual effects are expected to be negligible.

Habitats – Other Habitats

7.304 A number of beneficial residual effects are predicted with respect to habitats, including Woodland, Moderately Species-rich Grassland (off Snatts Road), Hedgerows and Tree Lines and Ponds.

7.305 Although there will be a loss of approximately 0.54ha of (non-ancient) woodland, at least 2ha of new woodland planting and 2ha of scrub planting is proposed as mitigation within the SANG and other public open spaces, and within Ancient Woodland buffer zones. Following the implementation of these enhancements, the residual effect on woodland is considered to be moderate beneficial and significant in the long term.

7.306 Similarly following the creation of two new ponds and the restoration of an existing pond, there will be a residual minor beneficial effect with respect to Pond Habitats. There will also be a minor beneficial effect resulting from the creation of new proposed native hedgerows within the proposed residential Development.

7.307 Further beneficial residual effects are expected with regards to some species, particularly Dormouse, Great Crested Newt and reptiles, where additional habitats will be created. In these instances, where the quantity and quality of habitat will improve, there is a considered to be a minor beneficial effect.

Cumulative Effects

7.308 Cumulative effects relating to ecology, resulting from the Development in combination with other developments, are considered in the following section below. A total of five schemes have been identified within the ZoI where there is the potential for cumulative impacts, the locations of which are shown on Figure 2.1. Table 7.11 below, provides a summary of relevant

cumulative effects.

Table 7.11. Summary of Cumulative Ecological Effects

Scheme Name and Application Number	Scheme Details	Current Planning Status	Distance from site	Proposed/Implement Mitigation Measures for the scheme	Cumulative effect
Approved Applications					
1a) Land West of Uckfield, Ridgewood Farm, Uckfield – Site SD1 (WD/2015/0209/MEA)	Outline planning application for the redevelopment of land at Ridgewood Farm comprising of up to 1000 net residential dwellings, and associated primary school and early years facilities, retail, community and leisure facilities. The associated development includes pedestrian/cycle routes, open spaces and car parking with vehicular access.	Approved 24th March 2016	1km to S	Mitigation measures are set out for Ancient Woodland (Ridgewood Bridge Shaw), where a 15m buffer is proposed, together with an 8m buffer zone around the Ridgewood Stream Corridor. Mitigation measures relating to the control of non-invasive species, and mitigation during the construction phase to safeguard bats, dormice, reptiles, amphibians (including Great Crested Newt) and invertebrates. The measures are detailed under a Construction Environmental Management Plan (CEMP) and Landscape and Ecology Management Plan (LEMP). During the operational phase, effects relating to indirect recreational disturbance effects on Ashdown Forest SPA are mitigated for through the provision of a bespoke SANG, and contributions towards SAMMS tariffs. Following implementation of the mitigation no negative residual effects are reported, and positive effects are reported in relation to habitats and faunal species.	A range of habitats and faunal species are receptors shared with the Development, although they are sufficiently isolated geographically that species populations and habitat networks are not likely to overlap and these effects are not considered likely to act in combination. In summary, since all effects are have been fully mitigated in the case of Approved Project 1 and the Proposed Scheme, the magnitude of these effects alone in each case is expected to be negligible and not Significant, and there cannot be any in combination effect. In summary, there are no cumulative effects.
1b) Land West of Uckfield - Site SD1 (WD/2017/1368/MRM)	Reserved matters application for Phase 1a & 1b of development at Ridgewood Farm (details of appearance, landscaping, layout and scale) pursuant to planning consent (reference WD/2015/0209/MEA) for the erection of 250no. Dwellings and associated car parking, play areas and hard and soft landscaping, drainage, ponds and earthworks.	Approved 21st September 2017	1km to S	Effects are described under the main application (WD/2015/0209/MEA) above.	Cumulative effects are assessed under the main application (WD/2015/0209/MEA) above.

Scheme Name and Application Number	Scheme Details	Current Planning Status	Distance from site	Proposed/Implement Mitigation Measures for the scheme	Cumulative effect
1c) Land West of Uckfield - Site SD1 (WD/2019/1773/MRM)	Reserved matters application in pursuant to the Phase 2 development outline planning permission, reference WD/2015/0209/MEA. This is to facilitate the construction of the new roundabout requiring early groundworks.	Approved 20th November 2019	1km to S	In February 2019, the site was subject to an updated habitat survey and an Ecological Assessment in May 2019 by Ecology Solutions (submitted to discharge condition 20) of part of the development site relating to the road network and 4 stockpiles for the soil. A wildlife mitigation plan (WMP) has been submitted to address condition 20 of the outline planning permission reference WD/2015/0209/MEA. The plan covers mitigation strategies to create new areas of species-rich grassland within the wider development to mitigate the losses of arable fields with additional planting of hedgerows to benefit dormice and other wildlife. The Ridgewood stream is to be retained with an appropriate buffer zone as initially proposed. Other mitigations measures are proposed prior to construction for dormouse by which a licence will be obtained for vegetation clearance of hedgerows and woodland in the south of the site. Other mitigation safeguard strategies are to be implemented for bats, Badgers, dormice, birds, reptiles, amphibians and invertebrates during construction.	Cumulative effects are assessed under the main application (WD/2015/0209/MEA) above.
2a) Land North of Mallard Drive, Uckfield TN22 5JQ (WD2010/2874/FE)	Residential development comprising of 146 dwellings, including affordable housing, open space including children's play areas and an equipped play area, structural landscaping and associated works, with access from Mallard Drive.	Outline Application Approved 15 March 2011	1.7km to SE	There do not appear to be any documents relating to ecological impacts on the planning portal, and it has not been possible to carry out an assessment of the Cumulative Effects at this stage.	There do not appear to be any documents relating to ecological impacts on the planning portal, and it has not been possible to carry out an assessment of the Cumulative Effects.

Scheme Name and Application Number	Scheme Details	Current Planning Status	Distance from site	Proposed/Implement Mitigation Measures for the scheme	Cumulative effect
2b) Land North of Mallard Drive, Uckfield TN22 5JQ (WD/2013/0415/MRM)	Reserved Matters application for application WD/2010/2874/FE for 119 dwellings.	Committee resolution to approve Reserved Matters application given 14 May 2020	1.7km to SE	The Ecological Enhancement and Management Plan (EEMP) states that prior to construction a reptile receptor site will be prepared with a suitable buffer zone located on site prior to any clearance. In addition, a dormouse licence will be obtained followed by the implementation of a detailed mitigation strategy. During construction a 15m buffer zone will be applied to protect the Ancient Woodland alongside a management plan which will be executed post-development. Other mitigation measures implemented during the construction phase to safeguard bats, Dormice, reptiles and hedgehogs with the creation of newly planted hedgerows and SUDs. During the operational phase, effects relating to indirect recreational disturbance effects on Ashdown Forest SPA are mitigated for through the provision of a financial contribution to the local SANG and SAMM. Following implementation of the mitigation no negative residual effects are reported, and positive effects are reported in relation to habitats and faunal species.	A range of habitats and faunal species are receptors shared with the Development, although they are sufficiently isolated geographically the species populations and habitat networks are not likely to overlap and these effects are not considered likely to act in combination. In summary, since all effects are have been fully mitigated in the case of this scheme and the Development, the magnitude of these effects alone in each case is expected to be negligible and not Significant, and there cannot be any cumulative effect.
3) Land Off Eastbourne Road (WD/2020/0410/MAO)	Outline planning application for up to 90 residential dwellings with associated landscaping, public open space, vehicular access and ancillary works.	Application under review	2.5km to SE	Mitigation measures are proposed for this scheme safeguarding bats, breeding birds, reptiles and amphibians during the constructional phase with an additional post development monitoring programme for reptiles. The HRA report details that the proposed development will make a financial contribution to the delivery of the local council's mitigation strategy for both the SANG and SAMM's.	A range of habitats and faunal species are receptors shared with the Development, although they are sufficiently isolated geographically. The species populations and habitat networks are therefore not likely to overlap and these effects are not considered likely to act in combination. In summary, since all effects are have been fully mitigated in the case of this scheme and the Development, the magnitude of these effects alone in each case is expected to be negligible and not Significant, and there cannot be any cumulative effects.

Scheme Name and Application Number	Scheme Details	Current Planning Status	Distance from site	Proposed/Implement Mitigation Measures for the scheme	Cumulative effect
Pending Consideration					
4) Charlwood Manor (WD/2020/1650/F) (WD/2021/1764/MAJ)	Demolition of existing buildings and construction of five dwellings with new access provided.	Submitted August 2020	Adjacent to E of site	The ecological appraisal proposes safeguarding measures for bats, nesting birds, reptiles (a low population of slow worm) which will also cover amphibians during the construction phase of the scheme. Following the implementation of mitigation measures for reptiles and bats, there are considered to be any residual effects.	Reptiles (slow worm) are shared receptors with the Development, and are in close proximity. However, both schemes mitigate impacts in full, and there are not expected to be any cumulative effects.
	Conversion and extension of the existing care home and the demolition of the existing bungalow and garage building to allow for the creation of 17 no. dwellings, 6 no. of which are affordable tenure. The creation of a new road access, closure of the existing access and associated works.	Submitted July 2021			
5) Land at Bird in Eye Farm, south of Bird in Eye Hill, Framfield, TN22 5HA (WD/2021/2198/MAO)	Outline planning application for the erection of up to 290 dwellings, associated landscaping, informal open space and strategic SANG, with access from the B2102.	Submitted August 2021	2km to SE	The Ecological Impact Assessment proposes mitigation in respect of reptiles, dormouse and populations and foraging bats. Mitigation has been proposed to address potential impacts on these protected species and ensure compliance with applicable legislation. The Site lies within the 7km ZoI of the Ashdown Forest SAC/SPA and prior to mitigation are assessed as likely to result in a significant effect on these Designations. Mitigation has been proposed in the form of an on-site SANG and through contributions to the Strategic Access Management and Monitoring Strategy (SAMMS).	A range of habitats and faunal species are receptors shared with the Development, although they are sufficiently isolated geographically. The species populations and habitat networks are therefore not likely to overlap and these effects are not considered likely to act in combination. In summary, since all effects have been fully mitigated in the case of this scheme and the Development, the magnitude of these effects alone in each case is expected to be negligible and not Significant, and there cannot be any cumulative effects.

Scheme Name and Application Number	Scheme Details	Current Planning Status	Distance from site	Proposed/Implement Mitigation Measures for the scheme	Cumulative effect
				Mitigation measures are also proposed in respect of SANG paths through ancient woodland including provision of buffer planting, interpretation boards and dog mess bins. Enhancements proposed include new woodland and tree planting, nectar-rich grasslands, incorporation of dormouse, bat and bird boxes and new wildlife ponds and SUDs features.	

Summary

7.309 Ecological surveys of the Site have been undertaken, including a desk study, an extended Phase 1 Habitat survey, detailed woodland botanical surveys, and a range of Phase 2 faunal surveys.

7.310 A number of ecological designations were identified by the desk study. These include Lake Wood LWS located adjacent to the southern boundary of the Site, whilst the nearest statutory designation is West Park (Uckfield) LNR, located approximately 100m to the south of the Site. Ashdown Forest SPA/SAC, is located approximately 3.4km to the north of the Site.

7.311 The Site has a large proportion of woodland, including some Ancient Woodland, although the areas proposed for Development are dominated by species-poor semi-improved grassland, not considered to be of ecological importance, together with other habitats including young woodland, tall ruderal vegetation, and scrub. Habitats which are considered to be of importance at the local level or above comprise woodland, an area of species-rich grassland, hedgerows and tree lines, ponds and watercourses. Surveys of protected species have found that the Site is of local importance for foraging and commuting bats, Dormouse, Great Crested Newts and reptiles, [redacted]breeding birds and other common mammal and invertebrate species are also supported by the Site.

7.312 A range of potential effects have been identified on habitats and fauna within and surrounding the Site, with potentially significant effects identified in relation to Ashdown Forest SPA/SAC, Lake Wood LWS, Ancient Woodland and other habitats of ecological importance, foraging and commuting bats, Dormouse, Great Crested Newt and reptiles.

7.313 Mitigation for recreational disturbance effects on Ashdown Forest SPA/ SAC will be provided in the form of a bespoke SANG which forms part of the Development and contributions to SAMM. Further mitigation measures are also proposed, including proposed woodland management for the surrounding woodland areas, and a lighting strategy has been put in place to provide a network of dark corridors for wildlife. A range of construction safeguards has been put in place with regards to faunal species, including a translocation exercise and new habitat creation in regard to Great Crested Newt. Particular mitigation measures and habitat enhancements are also proposed for Dormouse. Such measures are considered to avoid, minimise or offset any significant adverse effects resulting from the Development.

7.314 Furthermore, a range of additional enhancement measures have been identified to provide gains in biodiversity across the Site, including significant habitat creation within the SANG area and within new green corridors and existing woodland buffer zones. Other enhancements

will provide new nesting and shelter opportunities for a range of faunal species.

7.315 The Development and mitigation scheme have also been designed to achieve compliance with relevant legislation and planning policy. Measures are proposed to avoid killing or injury of protected species such as bats, Dormouse, birds, Great Crested Newt and reptiles (protected under the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2017) and opportunities for enhancements to biodiversity are also proposed, in accordance with NPPF, the NERC Act 2006 and local policy. Proposed enhancements will also deliver significant benefits in terms of green infrastructure, providing an extensive network of green links and corridors through and around the Site.

7.316 Following mitigation, it is considered that the Development would result in an overall gain in the existing ecological interest supported by the Site, with no significant residual adverse effects and significant beneficial effects in respect of woodland habitats, birds, Dormouse, and other fauna.

7.1 Table 7.12 contains a summary of the likely significant effects of the Development.

Table 7.12: Table of Significance – Biodiversity

Potential Effect	Nature of Effect (Permanent/Temporary)	Significance (Major/Moderate/Minor) (Beneficial/Adverse/ Negligible)	Mitigation / Enhancement Measures	Geographical Importance*							Residual Effects (Major/Moderate/ Minor) (Beneficial/Adverse/Negligible)
				I	UK	E	R	C	B	L	
Construction											
West Park (Uckfield) LNR	-	Negligible	None required					X			Negligible
Lake Wood LWS - dust deposition, surface run-off of contaminants or silt	Permanent	Minor Adverse	Construction Safeguards (provided under CEMP).					X			Negligible
Butchers Wood LWS	-	Negligible	None required					X			Negligible
Other Ecological Designations	-	Negligible		X	X	X	X	X	X	X	Negligible
Ancient Woodland	Permanent	Minor Adverse	Construction Safeguards (provided under CEMP) and sensitive lighting design.						X		Negligible
Veteran Trees	Permanent	Minor Adverse							X		Negligible
Habitats	Temporary	Minor Adverse								X	Negligible
Faunal Species (Foraging and Commuting Bats, Dormouse, Birds, Great Crested Newt, reptiles.	Temporary	Minor Adverse	Construction Safeguards (provided under CEMP). Specific method statements for Great Crested Newt and Dormouse						X		Negligible
Completed Development											
Ashdown Forest SPA/SAC – Recreational Disturbance	Permanent	Minor Adverse	Provision of SANG as strategic mitigation	X							Negligible
Ashdown Forest SPA/SAC – Air Quality Effects	-	Negligible	None required		X						Negligible
West Park (Uckfield) LNR	Permanent	Negligible	None required					X			Negligible
Lake Wood LWS	Permanent	Negligible	Embedded mitigation, in the form of buffer zones and proposed boundary fencing.					X			Negligible
Other Non-statutory Designations	-	Negligible	None required					X	X	X	Negligible

Ancient Woodland – Direct Deterioration (reduction in opportunities for woodland flora at boardwalk location)	Permanent	Minor Adverse	Translocation of ancient woodland ground flora from the route of the boardwalk						X		Negligible
Ancient Woodland – Other Effects	-	Negligible	None required (embedded mitigation in the form of 15m+ buffer zones).						X		Negligible
Veteran Trees	-	Negligible	None required						X		Negligible
Other Woodland	Permanent	Moderate Beneficial	Woodland management. Provision of additional woodland within SANG and public open space within residential areas.							X	Moderate Beneficial
Moderately Species-rich Grassland (off Snatts Road)	Permanent	Minor Adverse	Implementation of favourable management							X	Moderate Beneficial
Sandstone Outcrops – Lower Plants	Permanent	Negligible	None Required								Negligible
Native Hedgerows and Tree Lines	Permanent	Minor Beneficial	Planting of additional linear features as part of Development							X	Minor Beneficial
Ponds	Permanent	Minor Beneficial	Creation and restoration of ponds							X	Minor Beneficial
Watercourses	-	Negligible	None required							X	Negligible
Foraging and Commuting Bats	Permanent	Minor-moderate Adverse	Lighting Strategy. Wildlife-friendly lighting plan							X	Negligible
Dormouse	Permanent	Minor-moderate Adverse	Mitigation strategy. Additional woodland planting.							X	Minor beneficial
Great Crested Newt	-	Minor Adverse	Mitigation strategy. Pond restoration and new ponds							X	Minor beneficial
Reptiles	Permanent	Minor Beneficial	Habitat creation and enhancement							X	Minor beneficial
Cumulative Effects											
Construction											
None											

Completed Development
None

*** Geographical Level of Importance**

I = International; UK = United Kingdom; E = England; R = Regional; C = County; B = Borough; L = Local

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