Alderholt Meadows, Fordingbridge

Technical Appendix 9.3: Outline Ecological Mitigation and Enhancement Strategy

Prepared on behalf of

Dudsbury Homes (Southern)

Final Report

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Alderholt Meadows, Fordingbridge

Technical Appendix 9.3: Outline Ecological Mitigation and Enhancement Strategy

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Technical Appendix 9.3: Outline Ecological Mitigation and Enhancement Strategy

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1. INTRODUCTION

Brief

1.1 This document, prepared by Ecological Planning & Research Ltd. (EPR) on behalf of Dudsbury Homes (Southern), is an Outline Ecological Mitigation and Enhancement Strategy (EMES) relating to the Proposed Development of land at Alderholt, in east Dorset (the 'Site').

1.2 It serves as the outline EMES for the outline planning application as set out below (i.e. SANG and access), and where appropriate outline principles to be carried forward to the detailed EMES for the Reserved Matters Application (RMA) for each future phase of development.

1.3 The main purpose of this document is to consolidate, summarise and where necessary expand upon the mitigation and enhancement measures set out in ES Chapter 9: Ecology, **Technical Appendix 9.2: Information for Habitats Regulations Assessment** and **Technical Appendix 9.4: SANG Creation and Management Plan**, all of which are submitted for approval with the planning application.

1.4 It also cross-references the following documents:

- Construction Environmental Management Plan;
- Drainage Strategy;
- Tree Protection Plan; and
- Lighting Strategy.

1.5 **Section 2** provides the ecological context for the Site. **Sections 3 and 4** set out mitigation prescriptions for the Site Clearance/Construction and Operational phases of development respectively. **Section 5** summarises the proposed habitat enhancement works.

Site Location and Context

1.6 The Proposed Development is at Alderholt in East Dorset (hereafter the Site) (see **Map1**).

1.7 The Site extends to approximately 122ha and is predominantly occupied by farmland.

Outline of the Proposed Development

1.8 The Proposed Development description is as follows:

> *"Outline application for a mixed use development of up to 1700 dwellings including affordable housing and care provision; 10,000sqm of employment space in the form of a business park; village centre with associated retail, commercial, community and*

health facilities; open space including the provision of Suitable Alternative Natural Greenspace (SANG); biodiversity enhancements; solar array; and new roads, access arrangements and associated infrastructure. (All matters reserved apart from access off Hillbury Road)."

1.9 Please refer to **Chapter 3 Background to Development** and **Chapter 5 Development Description** for full details of the Site and the Proposed Development.

Relevant Legislation, Policy, and Guidance

1.10 Various articles of legislation, planning policy, and key guidance documents of relevance to biodiversity and nature conservation have been referred to in the preparation of this EMES.

1.11 This includes the following legislation of primary relevance:

- The Environment Act 2021;
- The Conservation of Habitats and Species Regulations 2017 (as amended), known as the 'Habitats Regulations';
- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way (CROW) Act 2000;
- The Natural Environment and Rural Communities (NERC) Act 2006; and
- The Protection of Badgers Act 1992.

1.12 Planning policy documents of primary relevance to this report include:

- The National Planning Policy Framework (NPPF, 2021), and in particular Section 15 of this document, which provides national policy on conserving and enhancing the natural environment through the planning process;
- The Christchurch and East Dorset Local Plan Core Strategy (Adopted 2014), and in particular policies:

  - ME1 Safeguarding Biodiversity and Geodiversity, and

  - ME2 Protection of the Dorset Heathlands.
- Due regard has also been afforded to draft Policies of the consultation draft Dorset Council Local Plan (2021):

  - ENV1 Green Infrastructure,

  - ENV2 Habitats and Species, and

  - ENV3 Biodiversity and Net Gain, and
- The Dorset Heathlands Planning Framework 2020-2025 Supplementary Planning Document.

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

- Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services; and
- The 25 Year Environment Plan.

2. ENVIRONMENTAL AND ECOLOGICAL CONTEXT

Introduction

2.1 This section presents a summary of existing environmental and ecological baseline conditions as a means to inform prescriptions for habitat creation and management.

Site Location and Physical Environment

Site Description and Present Use

2.2 The Site extends to approximately 122ha and the predominant land use is agricultural across three farms. There are large fields of arable land and improved grassland surrounded by a network of hedgerows. See **Chapter 3 Background to Development.**

Geology and Soils

2.3 With reference to the British Geological Survey website, the solid geology underlying the Site comprises Parkstone Sand Member – Sand, and Broadstone Clay Member – Clay, silty. Superficial deposits are River Terrace Deposit, 6– Sand and gravel, and Head – Clay and silt.

2.4 With reference to the Soilscapes website, the soils in the centre of the Site (proposed for most of the residential development) are likely to be Soilscape 8: Slightly acid loamy and clayey soils with impeded drainage. Such soils have moderate to high fertility and could support a wide range of pasture and woodland types.

2.5 The soils for the western part of residential development and western SANGs are likely to be Soilscape 15: Naturally wet very acid sandy and loamy soils. Such soils have very low fertility and could support mixed dry and wet lowland heath communities. Those across the southern part of the Western SANG and much of the eastern SANG are likely to be Soilscape 14: Freely draining very acid sandy and loamy soils. Such soils have very low fertility and could support lowland dry heath communities.

Topography

2.6 The Site is gently undulating ranging in height from approximately 60m Above Ordnance Datum (AOD) at the northern boundary to approximately 50m AOD on the southern and eastern boundaries.

Hydrology

2.7 The Site drains to the west (Sleep Brook) which drains into Hamer Brook to the south, and south to a pond which itself drains into Hamer Brook which eventually drains into the River Avon. There are four distinct drainage catchments across the Site. Full details are included in **Chapter 11: Drainage/Flood Risk**.

Landscape Character

2.8 The Site is within the Dorset Heaths National Character Area (NCA). The Site is south east of the Cranborne Chase and West Wiltshire Downs Area of Outstanding Natural Beauty (AONB).

Landscape History

2.9 Reference to the OS One Inch map from 1885-1900 shows how part of the western side of the Site was formerly known as Alderholt Common, which is shown as being contiguous with Cranborne Common further to the west. The eastern boundary of the former Alderholt Common is still represented by a wide boundary hedge and part of the land associated with a private house. Full details are included in **Chapter 8: Landscape and Visual Amenity**.

Nature Conservation Designations

Statutory Designations

2.10 Several nature conservation designations lie in close proximity to the Site.

2.11 As shown on **Map 1**, to the west is Cranborne Common Site of Special Scientific Interest (SSSI), a component of both the Dorset Heaths Special Area of Conservation (SAC) and the Dorset Heathlands Special Protection Area (SPA) and Ramsar.

2.12 The River Avon SSSI/SAC and Avon Valley SSSI, SPA and Ramsar lie to the east, with the New Forest SSSI/SAC/SPA/Ramsar further again.

Non-Statutory Designations

2.13 As shown on **Map 1**, sandwiched between Cranborne Common and the Site lies Sleepbrook Farm Site of Nature Conservation Importance (SNCI). Ringwood Forest SINC adjoins the southeastern part of the Site and extends to the south and southwest.

Existing Habitats

2.14 As shown on **Map 3**, the vast majority of the land use is currently modified grassland or arable land which is actively farmed. The key habitats present in this farmland landscape are a network of hedgerows of varying condition, and small areas of semi-improved grassland, scrub and woodland, with some mature Oaks and several ponds in localised areas in the southeast. These are of Local ecological importance.

Existing Wildlife

2.15 As summarised on **Map 4,** the habitats on Site support a good range of wildlife. This includes an assemblage of bat populations of County importance, an assemblage of breeding birds of Local importance which comprises common woodland species and a Barn Owl roost in one of the derelict barns. Nightjar, one of the bird species associated with the Dorset Heathlands SPA, forage over the western part of the Site. A population of Great Crested Newts of Local importance is centred on several of the ponds in the southern part of the Site. Good populations of Common Lizards and Slow-worms occur in localised areas, with some Grass Snake, and this reptile assemblage is of Local importance. Two Badger clans occupying various setts in two areas of the Site are of importance only Within the Zone of Influence.

3. ECOLOGICAL MITIGATION MEASURES: SITE CLEARANCE AND CONSTRUCTION PHASE

Introduction

3.1 This section sets out the outline ecological mitigation measures that will be implemented during the site clearance and construction phase of the Proposed Development.

Mitigation of Disturbance and Damage arising from Construction Activity

3.2 In the absence of mitigation, important ecological features may be subject to disturbance arising from increased noise and light pollution caused by site clearance, construction and habitat creation/enhancement works; the effects of dust generation, hydrological changes, or unexpected pollution incidents; and damage incurred through construction activities such as the movement of machinery and storage of materials.

3.3 Such activities might include:

- Clearance of existing vegetation such as arable crops, modified grassland and scrub;
- Removal of buildings, hardstanding and debris piles;
- Earthworks for construction and landscaping;
- Tree and scrub planting and seeding;
- Selective tree thinning and coppicing; and
- Localised hedgerow breaches for access.

3.4 The following receptors are considered potentially susceptible to such impacts:

- The qualifying species of the Dorset Heathlands SPA and their supporting habitats;
- The interest features of Cranborne Common SSSI;
- Locally designated sites, including Sleepbrook SNCI and Ringwood Forest SINC;
- Retained on-site habitats, including woodland, hedgerows, and lines of trees, grassland and rush pasture, and ponds and ditches; and
- Fauna including bats, breeding birds (plus Barn Owl), GCN, reptiles, and invertebrates.

Construction Environmental Management Plan

3.5 Disturbance and damage arising from construction activity will be mitigated through the implementation of the Construction Environmental Management Plan (CEMP).

3.6 The CEMP will prescribe measures required to prevent and mitigate dust, noise, lighting and other forms of pollution, including compliance with regulatory requirements and good practice protocols in respect of the storage and transportation of chemicals and materials and the disposal of waste. Key measures are summarised below:

- Dust will be controlled by damping down or covering loose materials during windy conditions, careful handling and storage of spoil heaps, and regular monitoring of dust

levels along boundaries. Road cleaning and wheel washing procedures will also be in place;

- No burning will be permitted on site;
- All surface water drainage from impermeable areas and tarmac will pass through trapped gullies prior to being discharged into any watercourse. As appropriate, gullies will be protected with terram or straw bales, and will be regularly inspected and replaced or cleaned as necessary;
- Silt protection measures will also be installed to new drainage features as the works progress. The applicant will ensure the Principal Contractor details their intended silt protection measures within the Construction Phase Plan, prior to works commencing. This will include the provision of a high-quality geotextile silt fence around the entirety of any site boundary where there is a possibility of surface water running towards Sleep Brook, to physically trap and prevent silt-contaminated water from leaving the site boundary;
- There will be no discharge of foul or contaminated drainage or trade effluent from the site into either groundwater or any surface waters, whether direct or via soakaways. No pumped water will be discharged into the live drainage system without having been filtered through a silt interceptor;
- Storage compound locations are identified in the CEMP. Any facilities for the storage of oils, fuels or chemicals will be sited on impervious bases and surrounded by impervious bund walls. Tanks will be sited in a safe area, away from manholes and surface water gullies;
- To minimise noise disturbance, all plant and equipment brought to site will be well maintained and operated in accordance with the manufacturer's instructions and will comply with the Control of Noise at Work Regulations 2005 as well as the recommendations of BS 5228 Code of Practice for Noise and Vibration Control on Construction and Open Sites. Any compressors, percussion tools and vehicles will be fitted with effective silencers of a type recommended by manufacturers, and all plant will be switched off or reduced to idle when not in use; and
- Any temporary artificial lighting will be directed away from the site boundaries and specifications will be agreed in advance by a suitably qualified and experienced ecologist.

Drainage Strategy

3.7 Adverse effects on hydrology and water quality will be avoided and mitigated by implementation of the detailed Drainage Strategy, which will serve to ensure that discharges from the Site will maintain or improve the current levels of water quality; prevent the migration of pollutants and sediments off site; and maintain the volume of discharge at current greenfield runoff rates.

Tree Protection Plan

3.8 Rootzone compaction and accidental damage to retained trees and hedgerows will be avoided by implementation of the Tree Protection Plan, which will provide prescriptions for the installation and maintenance of fencing to exclude construction activity from root protection areas.

Mitigation of Hedgerow Loss

3.9 The Proposed Development will result in the loss of small sections of hedgerow. This will be offset by replacement planting of native species-rich hedgerows, and the adoption of active conservation-led hedgerow management pursuant to the detailed EMES for the relevant RMA.

Mitigation of Harm to Badgers

3.10 In the absence of mitigation, site clearance and earthworks have the potential to cause harm or disturbance to Badgers and their setts. As Badger populations are relatively mobile, this may include any new setts that have been excavated and occupied since the previous Badger survey was undertaken.

3.11 Mitigation will include update surveys prior to the onset of works to identify any requirement to obtain a Natural England Development Licence to close setts. If any such setts show no signs of being in current use following a 5-day soft-blocking exercise (supported by the use of a wildlife camera trap) then the entrances will be excavated under the supervision of a Badger specialist.

3.12 Minimum 20m buffer zones will be implemented around retained setts, extending to 50m for main setts and also during the breeding season (which is from 1 December to 30 June inclusive) and with works compounds cited at least 30-100m from setts. Corridors between setts and foraging areas will be maintained so that food resources remain available for the population while works are ongoing, including the use of Badger-permeable construction fencing. Excavations will be covered at night. These measures are set out in the CEMP for each phase of the Proposed Development.

3.13 In order to prevent future conflicts between construction and retained setts, subterranean Badger-proof fencing will be installed along the edge of the development footprint in close proximity to retained setts to prevent Badgers extending their tunnels back into the construction zone. This will also reduce future conflict within the built development as a result of new tunnel excavation. Full details and plans will be provided at the appropriate Reserved Matters stage.

Mitigation for Loss of Bat Roosts

Mitigation of Bat Roosts in Buildings

3.14 Bat roosting evidence has been recorded in the following buildings:

- A maternity roost/hibernation roost for Brown Long-eared Bats in building B2;
- A day roost for Greater Horseshoe Bat in B2;
- Day roosts for Brown Long-eared Bat and Common Pipistrelle in B5; and
- A day roost for Soprano and Common Pipistrelles in B14.

3.15 Other roosts may establish prior to construction works.

3.16 In order to legally destroy a bat roost and / or disturb bats it will be necessary to apply to Natural England for a European Protected Species Mitigation Licence (EPSML).

3.17 The licence application will require inclusion of current survey information, describing evidence and the status of the roost. This will inform the mitigation and compensation proposals.

3.18 The soft strip of features in buildings that are known or potential bat roost features that must take place prior to renovation works or demolition can only be implemented when bats are not breeding or hibernating. This is likely to be in spring and autumn.

Mitigation of Bat Roosts in Trees

3.19 A high number of trees on the Site possess Potential Roosting Features (PRFs) for bats. These trees require further investigation at Reserved Matters stage.

3.20 While no trees with suitability for roosting bats are scheduled for removal as part of the Proposed Development, the suitability of trees to support roosting bats can change over time (such as limbs splitting or dropping).

3.21 Prior to any works to mature trees, a pre-works survey will be carried out by a suitably experienced ecologist to assess suitability for roosting bats. For unavoidable works, mitigation will depend upon whether the tree is classed as Low, Moderate or High suitability.

3.22 For Moderate and High suitability trees, it is likely that climbed inspections or emergence/re-entry surveys will need to be carried out at the appropriate time of year to establish the presence/likely absence of roosting bats. For Low suitability trees, in line with guidance from the Bat Conservation Trust (2016), as a precaution, they will be felled where possible outside of the sensitive maternity season (May-early September inclusive) and the hibernation period (November- February inclusive) using the following soft felling techniques:

- Cross-cutting will be avoided in proximity to cavities or hollows;
- Limbs with internal fissures will be pruned carefully to maintain integrity of features as potential roost sites;
- Any sections felled which contain cavities will be lowered carefully and left on the ground for 24 hours with the openings clear, allowing any bats inside an opportunity to escape;
- Split limbs under tension will be wedged open to prevent their closure when pressure is released, potentially trapping bats;
- Loose bark will be removed carefully before each section is felled, to avoid trapping bats when the limb falls;
- Depending on its thickness, any ivy growth will either be pruned/sectioned or, if sufficiently thick to protect potential bats roosting behind, will be left intact and the tree section felled inspected in the ground and then left for 24 hours before section cutting; and
- Each tree will also undergo a detailed search on the ground once it has been felled.

3.23 In the unlikely event that bats are found during the soft felling procedure, works will stop and advice sought from Natural England in respect of licensing requirements.

Mitigation of Harm to Nesting Birds

3.24 In the absence of mitigation, the clearance of scrub, woodland, hedgerow and arable vegetation may result in harm to nesting birds and the destruction of nests, eggs, and dependent young.

3.25 To minimise the risk of harm to breeding birds, vegetation clearance will take place outside the main breeding season, which typically runs from March to August inclusive, where possible, or will otherwise be preceded by a nesting bird check undertaken by a suitably experienced ecologist within 24 hours prior to the commencement of works. Should a nest be identified it will be retained within a suitable buffer (depending on the species) until such time as the ecologist can confirm that it is no longer active.

Mitigation of Harm to Great Crested Newts

GCN Mitigation Strategy

3.26 In the absence of mitigation, vegetation clearance and earthworks may result in harm to Great Crested Newts (GCN) occupying areas of potentially suitable on-site habitat during their terrestrial phase.

3.27 A District Licensing Scheme for GCN operates in Dorset and this could be a suitable option.

3.28 Otherwise, a traditional solution would be to carry out such works under the provisions of a Natural England-issued European Protected Species Mitigation Licence (EPSML). Whether an EPSML is necessary and proportionate depends on the projected risk of harm to GCN and will be determined on a phase-by-phase basis with reference to the respective distance of clearance areas from the GCN breeding ponds and the suitability of the affected and intervening habitat. As a general principle, an EPSML is likely to be required to legitimise works undertaken within 500m of breeding ponds.

3.29 Measures will be included in the CEMP to ensure potential hibernation habitat is not uprooted, disturbed or tracked over between the months of November and February inclusive (this may vary slightly year-on-year according to weather conditions).

Clearance under EPSML

3.30 Where clearance is to be undertaken under an EPSML, it will be preceded by a capture and exclusion exercise. Herptile exclusion fencing will be installed around the works area to be cleared in order to intercept GCN, with the fence route to be determined at each RMA stage.

3.31 Carpet tiles (refugia) and potentially pitfall traps (sunken buckets) will be installed on the inner side of the exclusion fence approximately every 10 metres, and a line of construction fencing (such as Heras fencing) will be installed to the inside of the refugia (leaving a sufficient gap for access for fence maintenance) to prevent accidental damage to the herptile fencing by machinery.

3.32 Refugia will be checked by an appropriately licensed ecologist, daily for a minimum 30 day period, under suitable weather conditions and during the active GCN season (typically March to October inclusive), continuing until five clear days are achieved, in line with the Great Crested Newt Mitigation Guidelines (NE, 2001) for a small population.

3.33 Any GCN caught will be moved to suitably well-established on-site receptor areas, to be determined at each RMA stage. Any GCN caught will be moved to the south eastern area and released within newly provided log piles at three locations next to ponds. The exclusion fence here will prevent their movement north into the works area.

3.34 Fingertip searches of debris piles in advance of mechanical clearance will be carried out between March and October inclusive by a licensed ecologist, with any GCN moved to the appropriate receptor area as above.

3.35 Phased vegetation clearance may also be undertaken to expedite capture or to persuasively clear areas of more marginal suitability for GCN. This involves strimming the vegetation down to around 10-15cm in height at least 48 hours prior to the commencement of ay intrusive groundworks or vegetation clearance, thus encourages any GCN to disperse out of the area. This can be undertaken at any time of year, subject to nesting bird checks described above.

3.36 The exclusion fencing and traps will be regularly checked and maintained to ensure that they remain fit for purpose. Vegetation on either side of the fence will be strimmed regularly during the growing season. The fencing will remain in place until the end of the construction/habitat creation works in question, and will be removed between the months of March and October to avoid any GCN that may be hibernating along the fence line. Habitat connectivity east-west will be retained during this phase around outside of the exclusion fencing.

3.37 Following completion of the translocation the ground/topsoil will be cleared. Any areas still considered as potentially containing GCN will be sensitively cleared under the supervision of a licensed ecologist, again between the months of March and October inclusive.

Mitigation of Harm to Reptiles

Reptile Mitigation Strategy

3.38 In the absence of mitigation, vegetation clearance and earthworks may result in harm to reptiles occupying areas of potentially suitable habitat. Such works will be undertaken under the provisions of a Working Method Statement (WMS) undertaken concurrently and along similar lines to the method set out above for GCN, between the active reptile season (typically March to October inclusive).

3.39 Potential hibernation habitat will not be uprooted, disturbed or tracked over between the months of November and February inclusive (this may vary slightly year-on-year according to weather conditions).

3.40 Herptile exclusion fencing will be installed and maintained around the works footprint, within which reptile refugia – in the form of bituminous or corrugated roofing materials – will be distributed at a high density across areas of potentially suitable habitat and checked daily for the presence of basking or sheltering reptiles in suitable conditions during the active reptile season. Any animals found will be relocated to suitably established receptor areas.

3.41 With reference to HGBI guidelines (1998), the reptile translocation may take between 60 and 100 days of capture visits undertaken in suitable temperature and weather conditions until a suitably experienced ecologist confirms that it is complete. If there has been 5-10 consecutive

days of trapping in suitable climatic conditions with no reptiles encountered, this is generally considered a suitable end to the capture operation.

3.42 Phased vegetation clearance may also be undertaken to expedite capture and encourage reptiles to disperse, as above.

3.43 Fingertip searches of debris piles will be carried out between March and October inclusive by an experienced ecologist, with any reptiles moved to the appropriate receptor area in advance of mechanical clearance.

3.44 Following completion of the translocation the ground/topsoil will be cleared. Any areas still considered as potentially containing reptiles will be sensitivity cleared under the supervision of an experienced ecologist, again between the months of March and October inclusive.

3.45 As with GCN, the herptile fencing will be removed only once works are complete, and between the months of March and October inclusive.

4. ECOLOGICAL MITIGATION MEASURES: OPERATIONAL PHASE

Introduction

4.1 This section sets out the ecological mitigation measures that will be implemented during the operational phase of the Proposed Development.

Mitigation of Recreational Pressure on Off-site Designated Sites

4.2 In the absence of mitigation, the Proposed Development is likely to increase recreational pressure on the Dorset Heathlands SAC/SPA/Ramsar, its most proximate component – Cranborne Common SSSI – and locally designated sites such as Sleepbrook SNCI and Ringwood Forest SINC.

Provision of SANG

4.3 As set out in **TA 9.2 Information for Habitats Regulations Assessment**, recreational pressure effects will be avoided by the provision of more than 53ha of SANG, in accordance with the requirements of the Dorset Heathlands Planning Framework 2020-2025 SPD.

4.4 The proposed SANG has been designed following consultation with Natural England to meet all of the 'Essential' and 'Desirable' criteria set out in their Guidelines for the Creation of SANG (2021).

4.5 Effects arising from increased recreational pressure will be avoided and mitigated through measures prescribed in the SANG Creation and Management Plan at TA 9.4, including sensitively sited, suitably surfaced and positively promoted path routes; and public information – in the form of leaflets, interpretation panels; and online resources – regarding the responsible enjoyment of natural heritage.

Mitigation of Increase in Artificial Lighting

4.6 In the absence of mitigation, the introduction of artificial light sources as part of the Proposed Development could adversely affect local bat populations, potentially leading to the abandonment of roosts, changes to prey availability and foraging behaviour, and the interruption of commuting routes. Other nocturnal wildlife, including Barn Owl and Nightjar and some invertebrates, could also be impacted. The potential impacts from lighting are particularly relevant to areas of proposed built-development (housing, roads etc), as the need for lighting in areas of open space, including areas proposed as SANG, will be minimal.

4.7 The effects of increased lighting will be mitigated by the application of standard control measures prescribed in the Lighting Strategy (DFL 2022), which include:

- Minimising lighting provision to the extent required for safety;
- Directing lighting downwards and away from wildlife habitats and boundary features, using cowls/baffles/shields as necessary to achieve full horizontal cut-off;
- Minimising the height of light columns and features;
- Selecting luminaries with warmer (less disruptive) colour temperatures in preference to those toward the blue-white end of the colour spectrum;

- Selecting LEDs in view of their relatively sharp cut-off, lower intensity, colour rendition, and dimming capability;
- Minimising lux levels, particularly in more sensitive areas; and
- Use of timer or motion sensor controls where possible.

4.8 These principles will form the basis for a series of appropriately sensitive and ecologically informed detailed Lighting Strategies, produced at subsequent RMA stages.

4.9 When preparing the Lighting Strategy, reference will be made to the latest guidance on lighting and biodiversity (Institute for Lighting Professionals / Bat Conservation Trust, 2018). This includes the requirement to take into account detailed and current bat survey information on use of the local area by bats. This is to identify important roosts, commuting corridors and foraging areas that must be kept dark for light-sensitive bat species in particular.

4.10 Furthermore, the Dorset Biodiversity Appraisal Protocol (DBAP) (see Section B Mitigation, para 2.26) states:

> *"Where linear habitats e.g., hedgerows, scrub, ditches, tree lines, river corridors etc., act as commuting and foraging features for highly light sensitive bat species – long-eared bats, Myotis (which include Whiskered, Natterer's, Brandt's, Daubenton's and Bechstein's), Barbastelle and Greater and Lesser Horseshoe bats – a minimum buffer of 6m with a long sward is required along its entire length. This must be measured from the edge of hedgerows and must be* ***incorporated within a minimum 10m dark corridor along its entire length****. Management of the buffer post development must be detailed in the BP or LEMP."*

4.11 In accordance with the DBAP, the most important linear habitats for bats within the local area will be protected by including at least 10m wide dark corridors within the design, with a buffer of long sward of a minimum of 6m. The buffers will be managed by annual cutting in autumn to 25cm to provide sheltered commuting and foraging areas for bats. The grassland thatch that forms will harbour small mammals (prey for Barn Owl) and reptiles.

Mitigation of Harm to Badgers

4.12 Although the Proposed Development has been designed to maintain foraging and commuting routes for Badgers, in the absence of mitigation, Badgers may be vulnerable to harm and disturbance arising from increased human activity including road use and the recreational use and management of greenspace.

Mitigation of Harm to Herptiles

4.13 In the absence of mitigation, amphibians and reptiles may be vulnerable to harm arising from increased human activity, including road use and the recreational use and management of greenspace.

Highways Measures

4.14 Gully pot entrapment and road mortality will be mitigated by the provision of recessed kerbs around gully pots, and wildlife tunnels or drop kerbs at potential crossing points. Detailed plans will be worked up and described in the EMES for each phase.

Greenspace Management Measures

4.15 As prescribed in the SANG Creation and Management Plan at TA 9.4, grass cutting within areas of potentially suitable herptile habitat will be undertaken on a two-phase basis, whereby an initial higher cut will be taken to reduce the extent of vegetative cover and encourage the dispersal of small animals. This provision will also be set out in the detailed EMES for each RMA.

Other Measures

4.16 The permeability of the Site for wildlife will be maintained through the provision of ramps or gaps in retaining walls, and 'hedgehog highways' (gaps) at the base of garden and boundary fencing. Detailed plans will be worked up and described in the EMES for each RMA.

4.17 **Table 4.1** below presents a summary of the mitigation requirements specified in **Sections 3** and **4** and identifies the respective submission documents that can be used as mechanisms to secure the delivery of mitigation.

Table 4.1: Summary of Mitigation Requirements

Impact	Receptor	Mitigation	Submission
Site Clearance and Construction Phase			
Disturbance & damage arising from construction/habitat creation activity	Dorset Heathlands SAC/SPA/Ramsar; Cranborne Common SSSI; Sleepbrook SNCI; Ringwood SINC; retained on-site habitats; fauna including bats, breeding birds, GCN; reptiles	Control measures prescribed in CEMP	CEMP (current and subsequent for future RMAs)
Hydrological changes	Dorset Heathlands SPA; Cranborne Common SSSI; Sleepbrook SNCI; Ringwood SINC; retained on-site habitats	Control measures prescribed in Drainage Strategy	Drainage Strategy (current and subsequent for future RMAs)
Damage to retained trees and hedgerows	Retained on-site habitats	Fenced root protection areas	Tree Protection Plan (current and subsequent for future RMAs)
Harm to Badgers	Badger population	Pre-works surveys, buffer zones, subterranean fencing, permeable construction fencing, covering excavations at night	CEMP; EMES (current and subsequent for future RMAs)
Harm to bats through tree works	Bat assemblage	Pre-works surveys, selection of alternative trees, further survey and/or soft-felling techniques if required	EMES (current and subsequent for future RMAs)
Harm to nesting birds	Breeding bird assemblage	Clearance to be undertaken outside of main breeding season or otherwise preceded by nesting bird check	EMES (current and subsequent for future RMAs)
Harm to GCN	GCN population	Clearance to be undertaken under EPSML / WMS and preceded by capture and exclusion exercise	EMES (current and subsequent for future RMAs) and WMS
Harm to reptiles	Reptile assemblage	Clearance to be undertaken under WMS and preceded by capture and exclusion exercise	EMES (current and subsequent for future RMAs) and WMS

Impact	Receptor	Mitigation	Submission
Operational Phase			
Recreational pressure (off-site)	Dorset Heathlands SPA; Cranborne Common SSSI; Sleepbrook SNCI; Ringwood SINC	Provision of SANG	IfHRA SANG Creation & Management Plan
Recreational pressure (on-site)	Retained habitats	Positively promoted path routes; natural heritage information	SANG Creation & Management Plan
Increased lighting	Bat assemblage and other nocturnal wildlife	Controls prescribed in Lighting Strategy	Lighting Strategy (current and subsequent for future RMAs)
Harm to Badgers	Badger population	Sensitive lighting; screening, public education measures, provision of tunnels and Badger gates, gaps/ramps in retaining walls, road calming measures	SANG Creation & Management Plan; Lighting Strategy (current and subsequent for future RMAs); detailed infrastructure design for future RMAs
Harm to herptiles from road traffic and infrastructure	GCN population and reptile assemblage	Recessed kerbs and crossing points	EMES (current and subsequent for future RMAs); detailed infrastructure design for future RMAs
Other Measures	All terrestrial wildlife	Gaps/ramps in retaining walls; Hedgehog Highways	Detailed infrastructure design and LEMP for future RMAs

5. ENHANCEMENTS

5.1 In accordance with established and emerging policy requirements, including the DBAP, the Proposed Development will deliver enhancements for biodiversity that go beyond the measures required to avoid and mitigate adverse effects arising from the Proposed Development.

5.2 The implementation of the SANG Creation and Management Plan at TA 9.4, and subsequent EMESs and detailed greenspace creation plans for each phase of the Proposed Development, will serve to establish a significant new resource of priority habitat types including species-rich neutral grassland, scrub, woodland and an extensive network of wetland habitats.

5.3 Biodiversity enhancement principles to be taken forward to the detailed design stage for future RMAs include:

- Built-in provision of a variety of bat tiles, tubes, bricks and boxes mounted within lofts on 50% of all new houses. Houses and buildings on the edge of the Proposed Development where this backs onto open countryside will have built-in bat roosting tubes;
- Built-in provision of a variety of bird boxes/integrated bricks on 50% of new houses. Swift bricks which benefit Swifts, House Martin and House Sparrow, nesting cups which are required for Swallows;
- Provision of Hedgehog friendly gravel boards / holes (13cm x 13cm) in garden fencing between houses, creating connectivity and access to gardens;
- Bee bricks built-in to houses at a rate of two per dwelling; and
- Landscape planting (trees, shrubs and flowers) of known benefit for pollinators.

5.4 The greenspace proposals have been designed to benefit key faunal assemblages such as the existing populations of bats, Badgers, amphibians, reptiles, breeding birds, Barn Owl, Nightjar and invertebrates, and to accord with local biodiversity strategy objectives, such as the protection and positive management of SNCIs, the creation of flower-rich habitats for use by native insect pollinators.

5.5 The measurable effect of the Proposed Development is a quantitatively demonstrable increase in biodiversity value exceeding the emerging policy requirement for 10% net gain (as detailed in **TA 9.5 Biodiversity Net Gain**).

6. MONITORING AND REVIEW

6.1 Prescriptions for monitoring the establishment and use of the proposed SANG are set in the SANG Creation and Management Plan at TA 9.4.

6.2 Compliance with the mitigation requirements itemised in this document can be monitored through the periodic submission of an ecological site inspection report or similar mechanism.

7. REFERENCES

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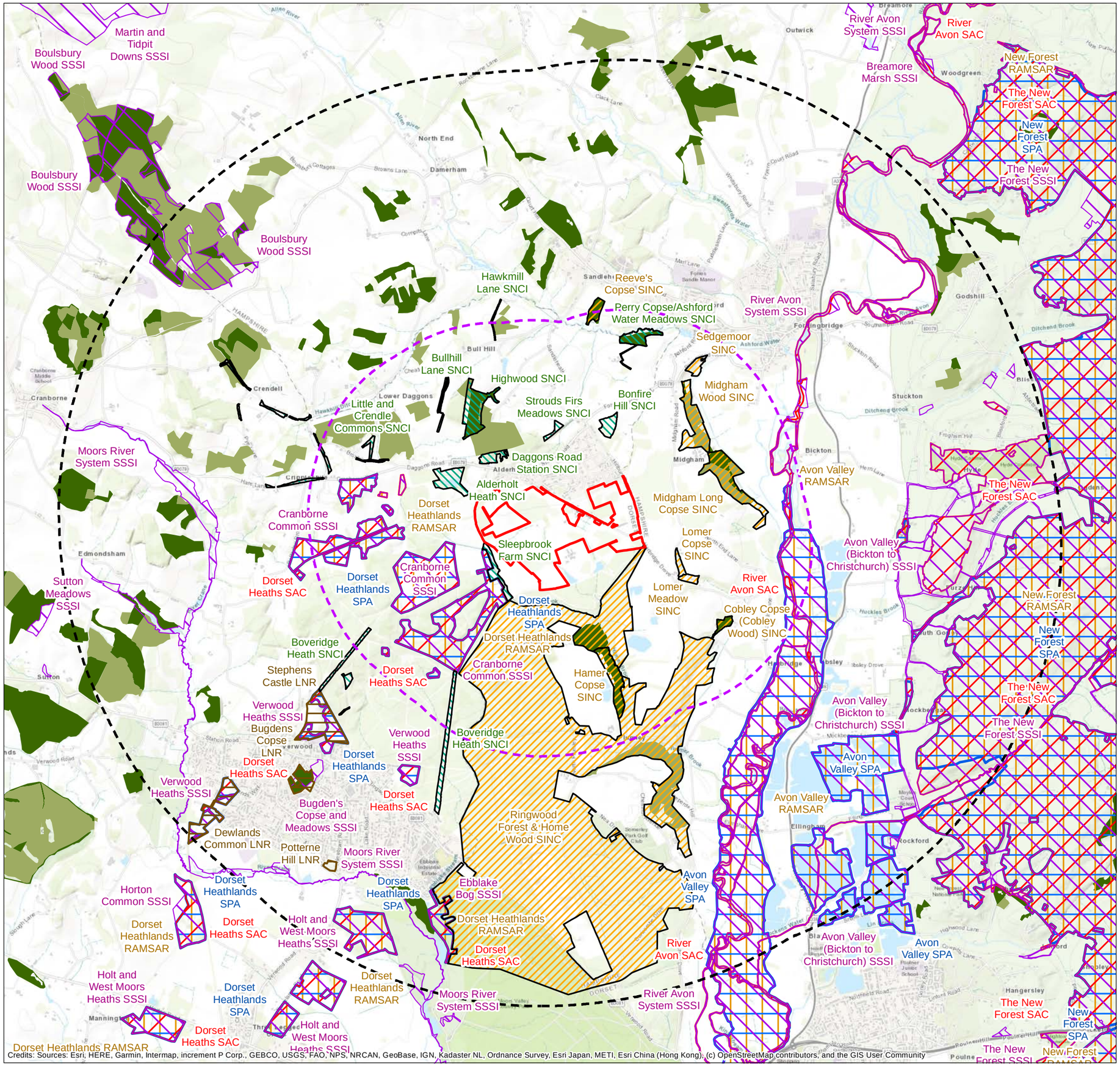
Maps



MAP 1 Site Location & Nature Conservation Designations

KEY

- Site boundary
- 2km linear distance from site boundary
- 5km linear distance from site boundary

Non-Statutory Sites

- Sites of Nature Conservation Interest (SNCI)
- Sites of Importance for Nature Conservation (SINC)
- Ancient & Semi-Natural Woodland
- Ancient Replanted Woodland

Statutory Sites

- Special Protection Areas (SPA)
- Special Areas of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)
- Ramsar
- Local Nature Reserves (LNR)

SCALE: 1:45,000 at A3

0 500 1,000 1,500 2,000 Metres

N

EPR

CLIENT: Dudsbury Homes (Southern)

PROJECT: Alderholt Meadows, Fordingbridge

DATE: 29 November 2022

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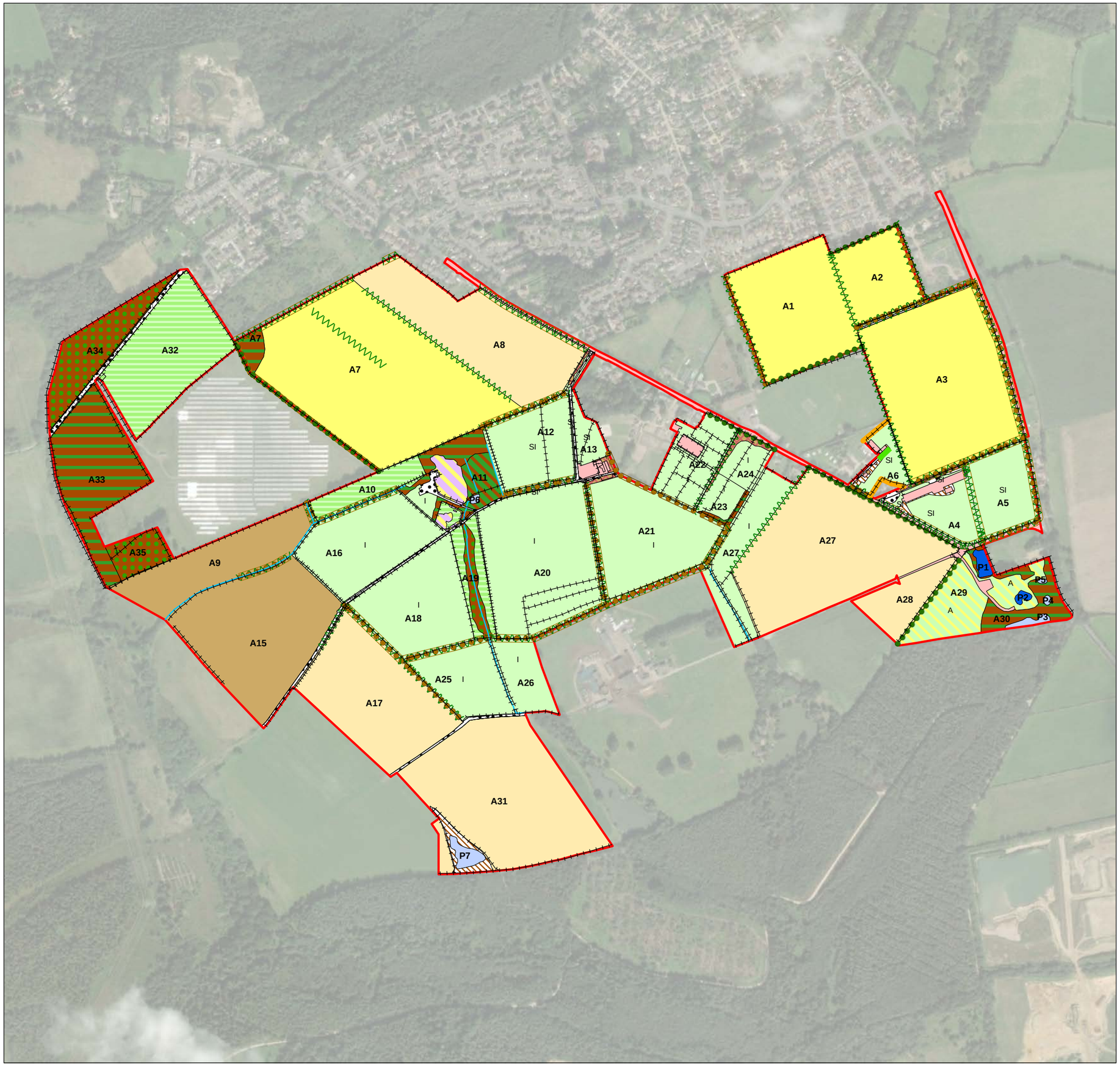
MAP 2 Baseline Habitats



KEY

- Site boundary
- Ditches
- Fences
- Hedge Ornamental Non Native
- Line of Trees - Associated with bank or ditch
- Line of Trees (Ecologically Valuable)
- Line of Trees (Ecologically Valuable) - with Bank or Ditch
- Native Hedgerow
- Native Species Rich Hedgerow
- Native Species Rich Hedgerow - Associated with bank or ditch
- Native Species Rich Hedgerow with trees
- Native Species Rich Hedgerow with trees - Associated with bank or ditch
- Temporary grass and clover leys
- Cereal crops
- Non-cereal crops
- Purple moor grass and rush pastures
- Other neutral grassland
- A — Modified grassland (Amenity grassland)
- I — Modified grassland (Improved grassland)
- SI — Modified grassland (Poor semi-improved grassland)
- Bramble scrub
- Ruderal/Ephemeral
- Ponds (Priority Habitat)
- Ponds (Non- Priority Habitat)
- Developed land; sealed surface
- Vacant/derelict land/ bareground
- Lowland mixed deciduous woodland
- Other woodland; mixed
- Wet woodland

SCALE: 1:7,500 at A3

N

0 100 200 300 400 500 Metres

EPR

CLIENT: Dudsbury Homes (Southern)

PROJECT: Alderholt Meadows, Fordingbridge

DATE: 29 November 2022

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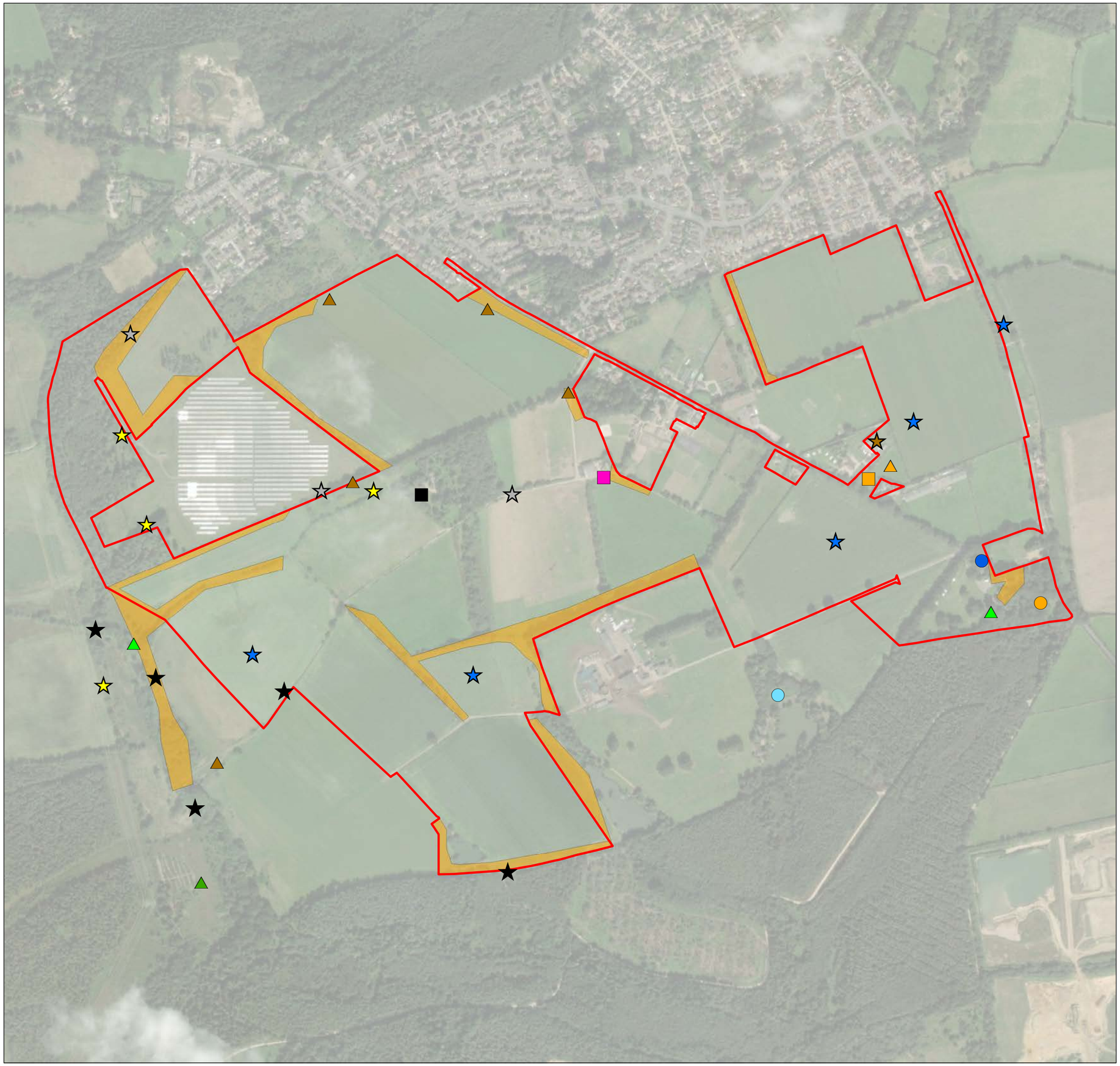
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



MAP 3 Key Species Summary

KEY

Site boundary

Bats

- B2 - Bat roost for 9 Brown Long-eared - maternity roost; Low no. Brown Long-eared hibernation; 1 Greater Horseshoe day roost
- B5 - Bat (day) roost for 1 Brown Long-eared and 2 Common Pipistrelles
- B14 - Bat (day) roost for 1 Common Pipistrelle, 1 Soprano Pipistrelle
- Habitat of relative importance for bats (based on consistency & abundance of observed activity)

Great Crested Newts

- P2 +ve Great Crested Newt eDNA in 2019
- P3 +ve Great Crested Newt eDNA in 2019
- P12 +ve Great Crested Newt eDNA in 2019. Great Crested Newt present in 2021 survey

Reptiles

- Common Lizard/Slow-worm
- Common Lizard/Slow-worm - Low numbers
- Grass Snake/Common Lizard/Slow-worm
- Smooth Snake

Birds

- B4 - Barn Owl roost
- Frequent Nightjar activity in this general area in 2021
- Occasional Nightjar activity in this general area in 2021
- Skylark territory in 2021
- Yellowhammer territory in 2021

SCALE: 1:7,500 at A3

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0 100 200 300 400 500 Metres

EPR

CLIENT: Dudsbury Homes (Southern)

PROJECT: Alderholt Meadows, Fordingbridge

DATE: 29 November 2022

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MAP 4 Ecological Enhancements

KEY

Site boundary

SCALE: 1:7,500 at A3

0 100 200 300 400 500 Metres

N

EPR

CLIENT: Dudsbury Homes (Southern)

PROJECT: Alderholt Meadows, Fordingbridge

DATE: 30 November 2022

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