

LAND SOUTH OF DICKETTS ROAD, CORSHAM

Ecological Impact Assessment

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ABBREVIATIONS

BAP	Biodiversity Action Plan
CIEEM	Chartered Institute of Ecology and Environmental Management

EcIA	Ecological Impact Assessment
IEF	Important Ecological Features
LNR	Local Nature Reserve
LWS	Local Wildlife Site
MAGIC	Multi-Agency Geographic Information for the Countryside

INTRODUCTION

1.1. Engain was commissioned by The Trustees of The Willford Family Trust to undertake an Ecological Impact Assessment (EcIA) of a proposed residential development at the Land South of Dicketts Road, Corsham, Wiltshire.

1.2. The development proposals comprise the creation of twenty-four residential properties and associated soft landscaping and infrastructure (the 'Proposed Development', **Figure 1**).

Figure 1, "Extract of Proposed Development"



1.3. The scope of this assessment is based on the Guidelines for Ecological Impact Assessment in the UK, published in 2018 by Chartered Institute of Ecology and Environmental Managers (CIEEM).

1.4. This EcIA is supported by an ecological data search, a desk study to identify any notable or protected sites, habitats or species on or near to the site, a field survey to map and describe the habitats of the site, a review of existing ecological data and field surveys for protected species related to the application.

1.5. The purpose of this EcIA is to:

- Set out the methodologies used to inform the assessment.
- Identify Important Ecological Features (IEF)[1] within the Zone of Influence (ZoI).
- Assess the impacts from the Proposed Development on the IEFs and any resulting significant effects.
- Set out measures to avoid or mitigate negative impacts.
- Assess the residual effects after the incorporation of agreed avoidance or mitigation measures.
- Set out agreed measures to offset any significant residual effects.
- Set out opportunities for ecological enhancement.

1.6. Furthermore, this EcIA presents how offences under relevant legislation protecting wildlife can be avoided, as well as recommendations for enhancing the site further for biodiversity.

[1] The definition of 'Important Ecological Features' is set out in Chapter 4 of '*CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester*'.

LEGISLATION AND POLICY

Legislation

2.1. The two principal European Union Directives relating to nature conservation are The Habitats Directive (1992) and The Birds Directive (amended 2009). Both directives are transposed into national legislation through The Conservation of Habitats and Species (Amendment) Regulations 2017.

2.2. The Habitats Directive (1992) protects certain species that are threatened across Europe and makes provision for the designation of wildlife conservation areas as Special Areas of Conservation. The Birds Directive (1979) makes provision for the designation of conservation areas for rare and vulnerable birds as Special Protection Areas.

2.3. European Protected Species are protected under The Habitats Regulations. It is an offence to:

- Deliberately capture or kill a European Protected Species;
- Damage or destroy a breeding site or resting place of a European Protected Species; or
- Deliberately disturb a European Protected Species in such a way as to be likely to significantly affect:
- The ability of any significant group of animals of that species to survive, breed, rear or nurture their young; or
- The local distribution of that species.

2.4. The Environment Act 2021 introduces requirements for development to deliver measurable net gains using the good practice principles of biodiversity net gain.

2.5. The Wildlife and Countryside Act 1981 (as amended, WCA) provides protection to common reptiles at a UK national level. Additionally, all wild birds, their nests and young are protected through the WCA and it is illegal to kill, injure or take any wild bird, or damage or destroy the nest or eggs of breeding birds.

2.6. Badgers (*Meles meles*) and their setts are protected under The Protection of Badgers Act 1992 (PBA) and by The Hunting Act 2004.

2.7. The Natural Environment and Rural Communities Act 2006 (NERC Act) extends the biodiversity duty set out in The Countryside and Rights of Way Act 2000 to public bodies and statutory undertakers to take due regard to the conservation of biodiversity. Local planning authorities should ensure that there is no net loss of biodiversity on a site, no net loss in habitat connectivity and should always aim to enhance biodiversity.

Relevant Policy

2.8. The National Planning Policy Framework sets out the government's policies for the protection and enhancement of biodiversity through the planning system. The National Planning Policy Framework encourages the planning system to contribute to and enhance natural and local environments, through minimising the impacts on biodiversity and providing net gains in biodiversity where possible.

2.9. Local planning authorities are required to follow key principles in their consideration of potential impacts of planning decisions on biodiversity conservation. Circular 06/05: Biodiversity and Geological Conservation provides administrative guidance on the application of the law relating to planning and nature conservation and complements The National Planning Policy Framework.

2.10. The presence of species protected under UK and European legislation are a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. Ecological assessments are required by planning authorities to inform the planning application.

2.11. Biodiversity 2020: A strategy for England's wildlife and ecosystem services provides national and local biodiversity strategies for England, based on the habitats and species listed under The Natural Environment and Rural Communities Act. Local biodiversity action plans give valuable information on local conservation priorities. The site is covered by the Wiltshire Biodiversity Action Plan (LBAP).

Local Planning Policy

2.12. The following local planning policies are relevant to this assessment:

- Wiltshire Core Strategy (2015)
    - **Core Policy 50, Biodiversity and geodiversity**: Development proposals must demonstrate how they protect features of nature conservation and geological value as part of the design rationale. There is an expectation that such features shall be retained, buffered, and managed favourably in order to maintain their ecological value, connectivity, and functionality in the long-term.
- Corsham Neighbourhood Plan (2019)
    - **Policy CNP ED1**: Proposals for development should take into account the Corsham Design Guide and Corsham Batscape Strategy.
    - **Policy CNP E1**: Applicants will need to demonstrate how their proposals would contribute to the delivery of the Corsham Batscape Strategy, including details of measures to preserve and, where possible, enhance wildlife corridors, (especially with regard to foraging areas), priority flight lines and maternity roosts.
    - **Policy CNP E3**: All proposed landscaping must be of an appropriate species mix and of local provenance.

Wiltshire Biodiversity Action Plan

2.13. Local biodiversity action plans give valuable information on local conservation priorities. The Wiltshire Biodiversity Action Plan (2006) is the local biodiversity action plan relevant to this site and highlights the value of habitats found in the region. Particularly relevant species comprise bats (various species), reptiles (various species), house sparrow (*Passer domesticus*), starling (*Sturnus vulgaris*), swift (*Apus apus*) and hedgehog (*Erinaceus europaeus*).

SITE LOCATION AND GENERAL DESCRIPTION

Site Location

3.1. The site is located within Corhsam, to southeast of the town's urban fringes. Residential developments lie to the north and east and to the south and west lies farmland. The site area is approximately 1.5ha. The ordnance survey grid reference for the centre of the site is ST87466929.

General Description

3.2. The site's habitats consist of a grassland field surrounded by tall mature hedges and a small stand of secondary woodland.

3.3. According to Soilscape, the site is lime-rich loamy and clayey soils with impeded drainage.

METHODS

Desk Study

4.1. Wiltshire & Swindon Biological Records Centre has provided records of notable sites, habitats, and species within the last 20 years. The search area was set at a radius of 2km from the site boundary for protected and notable species, with an additional 4km buffer specifically for bats.

4.2. Online resources were also used, including the UK government's online resource for geographic information about the natural environment (MAGIC Map). This and other resources were used to scope the habitat survey at an appropriate scale and level of detail.

Habitat Survey

4.3. A habitats survey was conducted on 30th June 2022. The field survey method was based on the UK Habs, as per the UK Habs User Manual.

4.4. Considering the size of the site and the nature of variation in habitats across the site, the appropriate scale of mapping was determined to be a fine scale Minimum Mapping Unit, meaning no areas of habitats less than $25m^2$ or 5m in length (if a linear feature) need be recorded.

4.5. The Primary Habitats were mapped using the professional edition of the hierarchy, at a minimum of a Level 4 habitat using the UK Habs Habitat Definitions as a guide. Once a Primary Habitat was assigned, a Secondary Code was added to further define the habitat type. Habitats are described with reference to their dominant and constituent species, and their UK Habs codes are given in the relevant sections. In some cases, secondary codes are referred to where there is sufficient variation in the habitat to warrant their use.

4.6. Any signs of invasive species listed on Schedule 9 on WCA 1981 such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens grandiflora*) and giant hogweed (*Heracleum mantegazianum*) were noted.

Protected Species

4.7. The site is not suitable for great crested newts (*Triturus cristatus*), otters (*Lutra lutra*), white-clawed crayfish (*Austropotamobius pallipes*) and water voles (*Arvicola amphibious*) due to the lack of suitable terrestrial habitats and aquatic habitats on and off the site. These species are not considered further in this report.

4.8. Considering the site location, context, and the habitats it contains, badgers, bats, breeding birds, dormice, hedgehogs, reptiles and invertebrates are considered in this report.

Badger survey

4.9. A systematic search for signs of badgers was originally conducted on 30th June 2022. Furthermore, any incidental observations of evidence for badgers were recorded whenever on site. The surveys followed standard guidelines (Harris, Cresswell & Jeffries, 1989) and included a thorough search for setts or for signs of badger activity, including tracks, latrines, hairs and snuffle holes.

Bats

Bat Activity Surveys

4.10. Bat activity surveys were carried out in 2023 according to standard guidance (Collins, 2016; Mitchell-Jones, 2004; and Mitchell Jones & McLeish, 2004). Refer to **Figure 1** for the bat transect route. Transect routes were walked by one surveyor, starting at different positions each transect.

Table 1, "Details of transect bat survey schedule"

Date	Start / Finish	Sunset / Sunrise	Weather Conditions (Start/Finish)			
			Temp (°C)	Cloud	Wind	Rain
31/05/2023	21:15 / 23:15	21:15	12	0	1	0
30/06/2023	21:15 / 23:15	21:29	17	8	4	2
03/07/2023	21:28 / 23:28	21:28	14	7	4	0
22/08/2023	20:02 / 22:02	20:17	16	2	0	0
08/09/2023	19:27 / 21:27	19:42	24	6	1	0
10/10/2023	18:27 / 21:27	18:27	15	5	1	0

4.11. Visual observations were supported by the use of ultra-sonic bat detectors. A variety of hand-held detectors (Anabat SD2, EM3+ and EMTouch) were used.

Automated Static Surveys

4.12. A SM2 static detector was installed within the site between April – July and October for a total of 29 nights. These were placed in locations identified to be a potential commuting and foraging feature for bats, thus providing guidance on measures relating to bats in line with the mitigation hierarchy.

4.13. Details of the automated static survey schedule are provided in **Table 2**.

Table 2, "Static detector deployment"

Month	Start Date (night of)	End Date (night of)	Number of Nights
April	27/04/2023	30/04/202	4
May	01/05/2023	03/05/2023	3
June	30/06/2023	30/06/2023	1
July	01/07/2023	14/08/2023	14
October	13/10/2023	19/10/2023	7

Data Analysis

4.14. Static detector data was analysed using Kaleidoscope Pro software. Myotis species identification was accepted but is treated with caution when analysing the results, and where in doubt all Myotis species have been combined, and it is assumed that some of the calls may be Bechstein's bats.

Figure 2, "Transect routes and static detector locations"



Condition Assessment

4.15. To inform a Biodiversity Net Gain Assessment (BNGA) a condition assessment has been undertaken of the habitats present on the site using the Biodiversity Metric 4.0 – Technical Supplement. This document sets out criteria and characteristics for each habitat and provides guidance on an assessment of habitat condition (which can be 'good', 'fairly good', 'moderate', 'fairly poor' and 'poor'). The assessment criteria considered are different for each habitat type but include criteria such as the presence of undesirable species, habitat extent, habitat health and vegetation structure.

4.16. For any habitats present on site for which condition assessment criteria is not available, professional judgement has been used.

Zone of Influence

4.17. The Zone of Influence (ZoI) for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries.

4.18. Based on the scale and nature of the Development, it has been assessed that the ZoI arising from these works is unlikely to be greater than 1km from the centre of the site. Therefore, these distances have been used to collect the ecological data search information.

4.19. The habitat survey area comprised primarily the site. However, adjacent land was viewed where possible. As referenced in industry guidance, IEFs that are present or potentially present on and off the site which may be impacted by the Development have been considered.

Important Ecological Features

4.20. Data gathered to inform this EcIA provides an assessment of identified IEFs relating to nature conservation value of the features at this site is also assessed against published criteria wherever possible.

4.21. The main criteria in which IEFs are identified comprises an evaluation of the feature, considering its diversity, naturalness and extent. Identification of IEFs is supported by best practice such as the Bat Surveys for Professional Ecologists, Good Practice Guidelines (Collins, J. (ed) 2016) and literature, including Usher (1986) and Ratcliffe (1977).

4.22. Furthermore, when determining importance for this EcIA, consideration of geological context is also made. The following frame of reference is used:

- International and European
- National
- Regional (southwest)
- Metropolitan, County, vice-county or other local authority-wide area (Wiltshire)
- Local/borough (Corsham).

4.23. Based on best practice (CIEEM, 2018), any features considered to be less than of local value are not assessed within this EcIA.

4.24. Not all potential or confirmed IEFs within the ZoI have the potential to be significantly affected by the Development and a proportionate approach has been employed. Where features are unlikely to be affected by the Development, or where any effects that impact IEFs are unlikely to be significant, for the reasons listed below, such features have been scoped out of the assessment:

- No pathway of effect has been identified, for example the feature is sufficient distance from the site or there is the presence of a barrier between its location and the site; or
- The feature is of insufficient biodiversity conservation value within the ZoI, due to its quality, extent or population size.

Impact Assessment

4.25. The impact assessment process involves:

- Identifying and characterising impacts and their effects;
- Incorporating measures to avoid and mitigate negative impacts and effects;
- Assessing the significance of any residual effects after mitigation;
- Identifying appropriate compensation measures to offset significant residual effects; and
- Identifying opportunities for ecological enhancement.

Predicting Ecological Impacts and Effects

4.26. The process of predicting ecological impacts and effects will consider the relevant aspects of ecosystem structure and function. Examples include the availability of the identified IEF's resources, such as connective or breeding habitat and environmental processes such as the hydrological regime of a river.

Characterising Ecological Impacts

4.27. When describing ecological impacts and effect, the following characteristics are considered:

- Positive or negative;
- Extent;
- Magnitude;
- Duration;
- Frequency and timing; and
- Reversibility.

Assessment of Cumulative Impacts and Effects

4.28. There is no requirement for a cumulative assessment in this EcIA, considering the nature of the Development, the small scope of works to be assessed and the scale of the likely impacts.

Assessment of Residual Impacts

4.29. After assessing the impacts of the proposal, efforts should be made to avoid and mitigate the ecological impacts. Once these measures have been agreed, an assessment of the residual impacts will be made to determine the significance of their effects on the identified IEFs.

Determining Significant Effects

4.30. A 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives of any identified IEFs.

4.31. The following considerations are made in relation to the identified IEFs:

- any processes or key characteristics will be removed or changed;

- there will be an effect on the nature, extent, structure and function of component habitats; and
- there is an effect on the average population size and viability of component species.

4.32. The evaluation of significant effects should be based on available scientific evidence. Based on the precautionary principle, if the available information is not sufficient, then a significant effect may be assumed likely to occur.

4.33. The evaluation of significant effects is based on available scientific evidence. The level of an effect is stated with reference to the matrix in **Table 3**.

Table 3, "Matrix for stating the level of significance of an ecological effect"

	Magnitude / Scale of Impact (degree of change)					
		No Change	Negligible	Minor	Moderate	Major
Ecological Importance	National (England)	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large
	Regional (south-west)	Neutral	Slight	Slight or Moderate	Moderate or Large	Large or Very Large
	County (Wiltshire)	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Parish (Corsham)	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Site	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Limitations

Automated Static Surveys

4.34. Due to a hardware error at the locations, five days of static detector data was not collected in June. However, data was collected for a longer period in July to compensate. Data was not recorded in August and September, however given the extended number of days in July and October, this is not considered a limitation to the assessment.

4.35. Two different types of automated detector were used to collect the static data, the Song Meter Mini and Anabat Express. Both these detectors collect data in a different format, with the Song Meter Mini collecting the data as .wav files and the Anabat Express collects data in .zca files. All data was manually checked by an experienced ecologist and no obvious discrepancies were noted between the results of the two types of detectors. As such, it is not considered a limitation to this assessment.

4.36. It should be noted, the automated detectors pick up bats every time they fly past as such, numerous registrations in a brief period could be the same bat foraging up and down several times opposed to different individual bats each occasion.

RESULTS

Designated Sites

Statutory Designated Sites

5.1. There are two statutory designated sites of relevance to this site (**Table [x]**).

Table 4, "Statutory designated sites"

Name	Designation	Proximity	Qualifying features
Bath and Bradford on Avon Bats / Box Mine component	Special Area of Conservation / Special Site of Scientific Interest (SSSI)	3km west	This 106.45 hectare site in southern England comprises the hibernation sites associated with 15% of the UK greater horseshoe bat (*Rhinolophus ferrumequinum*) population and is selected on the basis of the importance of this exceptionally large overwintering population. Small numbers of Bechstein's bats (*Myotis bechsteinii*) have also been recorded hibernating in abandoned mines in this area, though maternity sites remain unknown. Lastly, it also supports a population of Lesser horseshoe bat (*Rhinolophus hipposideros*) however, it is not the primary reason for the designation. The Box Mine component, seasonally supports up to 10% of the total British population of greater horseshoe. It is particularly important for bats as a hibernaculum between October and May and as a dispersal site in July and August

Non-Statutory Designated Sites

5.2. There are five non-statutory designated sites within 2km of the site:

Table 5, "Non-statutory designated sites"

Name	Designation	Proximity	Qualifying features
Corsham Estate Meadows	Local Wildlife Site (LWS)	1.7km N	An area of semi-improved hay meadow set in an historic parkland landscape, with numerous native and exotic tree plantings. Priority habitats: Lowland beech and yew woodland.
Corsham Lake	LWS	1.3km NE	An ornamental lake in the grounds of Corsham Court. Priority habitats: Eutrophic standing waters; Reedbeds; Wet woodland.
Gastard Meadows	LWS	1.5km E	Three small neutral to calcareous pastures.
The Withy Bed	LWS	1.9km N	Mature broadleaved woodland with a long history of ornamental planting on a historic estate. Priority habitat: Lowland mixed deciduous woodland.

Habitats

5.3. During the field survey, the following habitats were recorded:

- Scrub;
- Modified grassland;
- Native species rich hedgerow with trees.
- Other neutral grassland; and
- Other woodland, mixed.

Figure 3, "Habitats Map"

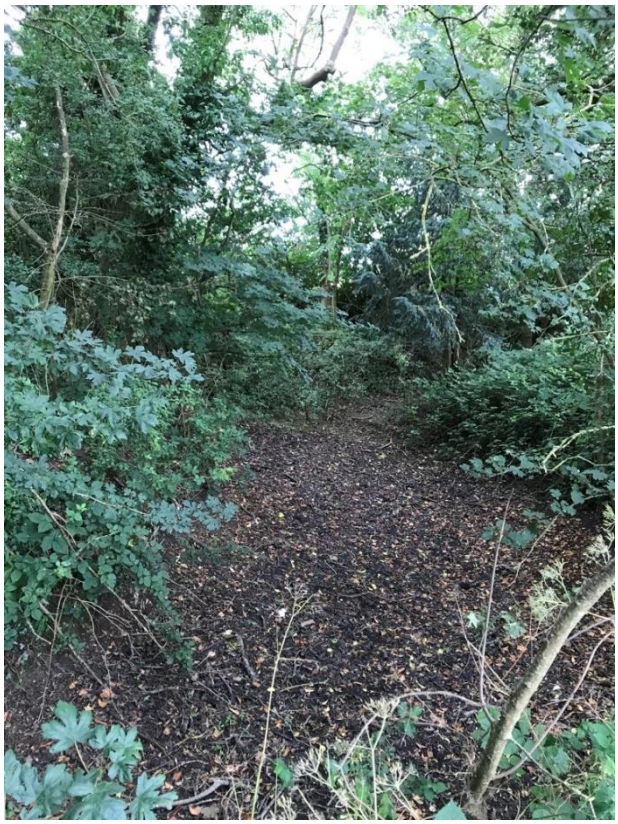


Scrub

5.4. Along the majority of the site boundaries habitat comprise scrub dominated by bramble (*Rubus fruticosus*), field maple (*Acer campestre*) and hawthorn (*Crataegus monogyna*).

5.5. In the south west corner of the site, within the scrub is pond which was dry at the time of the survey.

Figure 4, "Dry pond surrounded by scrub"



Modified grassland

5.6. An area of modified grassland was present where the field was fenced off from grazing sheep. It was largely species poor, dominated by vigorous grasses such as cock's foot (*Dactylis glomerata*), perennial rye grass (*Lolium perenne*), false oat grass (*Arrhenatherum elatius*) and Yorkshire fog (*Holcus lanatus*). Herbs such as creeping buttercup (*Ranunculus repens*), daisy (*Bellis perennis*) and white clover (*Trifolium repens*) were present. The management regime for this habitat comprised regular mowing.

Figure 5, "Modified grassland"



Native species rich hedgerow with trees

5.7. The site is bound by species rich hedgerows with trees along the southern and eastern boundaries. Species recorded included hazel (*Corylus avellana*), hawthorn, field maple, blackthorn (*Prunus spinosa*), field maple, elder (*Sambucus nigra*) as well as oak (*Quercus robur*), ash (*Fraxinus excelsior*) and sycamore (*Acer pseudoplatanus*) trees. The hedgerows have been maintained to allow the trees to become mature, albeit there is little understory.

Figure 6,
"Example of species rich hedgerow with trees"



Other neutral grassland

5.8. The sheep-grazed field is moderately species-rich grassland with a sward dominated by fine-leaved grasses and broad-leaved herbs, referable to the National Vegetation Classification (NVC) MG6 Grassland. Further to the species recorded in the modified grassland, crested dog's tail (*Cynosurus cristatus*), red fescue (*Festuca rubra*), common mouse-ear (*Cerastium fontanum*), red clover (*Trifolium pratense*), bird's-foot trefoil (*Lotus corniculatus*), yarrow (*Achillea millefolium*), ribwort plantain (*Plantago lanceolata*) was also noted.

Figure 7, "Other neutral grassland"



Other woodland, mixed

5.9. The secondary woodland in the north-west corner of the site has a mix of ash and sycamore with a spare shrub-layer comprising hawthorn and some ornamental garden shrubs. The field-layer comprises shade-tolerant herbs including cow parsley (*Anthriscus sylvestris*), lord's and ladies (*Arum maculatum*), nettles (*Urtica dioica*) and ivy (*Hedera helix*). It is broadly referable to the NVC type W8 woodland. It is not ancient semi-natural woodland as it does not have the characteristic vegetation or landscape features of ancient woodland and there is no woodland here on the 1900 OS Map.

Figure 8, "Other woodland, mixed"



Protected Species

Badgers

5.10. There are seventeen records of badgers and five records of badger setts within 2km of the site. The exact location of the badger setts are confidential and the closest record for badger is 390m north.

5.11. Whilst the habitats recorded on site are typically associated with badgers i.e. woodland and field margins, no field signs such as latrines or guard hairs indicating badger activity, were found during any of the site visits and there is no sett building oppourtuties. It is likely the site is within a badger clan territory but would be used for occasional commuting and foraging only.

Bats

Desk Study

5.12. The data search returned 3,229 bat records within 4km of the site, in the last 20 years. However, many of these records are associated with regular monitoring of certain site (e.g. seventy eight roost counts are from monitoring a roost in the 'Ice House' between 2020 – 2021 and a large number of records for roosts associated with the five year monitoring associated with mitigation licences or part of the National Bat Monitoring Project) Of these, in total, there is twenty five records for Bechstein's (*Myotis bechsteinii*) roosts, 438 records were of lesser horseshoe (*Rhinolophus hipposideros*), and 343 roost records for greater horseshoe (*Rhinolophus ferrumequinum*).

5.13. According to MAGIC, the closest EPS mitigation licence for bats is located 110m south east of the site. The licence was granted in 2011 to cover the destruction of a maternity roost for common pipistrelle, soprano pipistrelle, brown long eared and lesser horseshoe.

Preliminary roost assessments

5.14. Several trees along the site boundary have low potential for roosting bats. No buildings are on site.

Foraging and commuting

5.15. The site is largely bound by mature/ well developed hedgerows with trees or woodland, which links into the wider landscape, based on best practice guidance, it considered to be of moderate potential for commuting and foraging bats for all species, including Annexe II.

5.16. With regards to the Box Mine SAC / SSSI, there is no clear green infrastructure link between the site and Box Mine, with large fragmentation barriers such as the Ministry of Defence Corsham / Spring Park Data Centre complex and the Leafiled Industrial Estate resulting in no clear flight path acting as a connective feature.

Activity Surveys

5.17. The following species were recorded during the 2023 transect surveys:

- barbastelle (Barbastella barbastellus);
- brown long-eared bat (*Plecotus auritus*);
- common pipistrelle (Pipistrellus pipistrellus);
- Leisler's (Nyctalus leisleri);
- myotis species (*Myotis spp*);
- noctule (Nyctalus noctula);
- serotine (Eptesicus serotinus); and
- soprano pipistrelle (*Pipistrellus pygmaeus*).

Automated Static Surveys

5.18. The following bat species were recorded during the static detector surveys:

- barbastelle;
- common pipistrelle
- Leisler's;

- lesser horseshoe;
- greater horseshoe;
- myotis species;
- Nathusius' pipistrelle;
- noctule;
- serotine; and
- soprano pipistrelle.

5.19. A total of eight bat species and the unidentified myotis species were recorded on site (**Table 6**). With regards to Greater horseshoes, they:

- were recorded visiting the site solely in July (**Figures 10-12**);
- visited the site infrequently (2 out of 15 nights in July when detector was present, **Figure 12**);
- made few passes per night (0.133, **Figure 10**); and
- were in low abundance compared to other species (0.32%, **Figure 11**).

Table 6, "Passes per nigh, per month, per species"

	Barb	Eser	Myo sp.	Nlei	Nnoc	Paur	Pnat	Ppip	Ppyg	Rferr	Rhipp
April	0.00	0.00	0.33	0.00	2.33	0.00	0.00	14.33	2.67	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	1.00	0.00	0.00
June	0.00	0.00	0.00	2.00	0.00	0.00	0.00	13.00	4.00	1.00	0.00
July	0.36	0.86	0.07	1.43	0.14	0.00	0.00	33.71	8.29	0.36	0.21
October	0.00	0.71	4.86	0.29	1.00	0.43	0.14	19.43	3.00	0.00	0.29

Figure 4, "Passes per night per species"

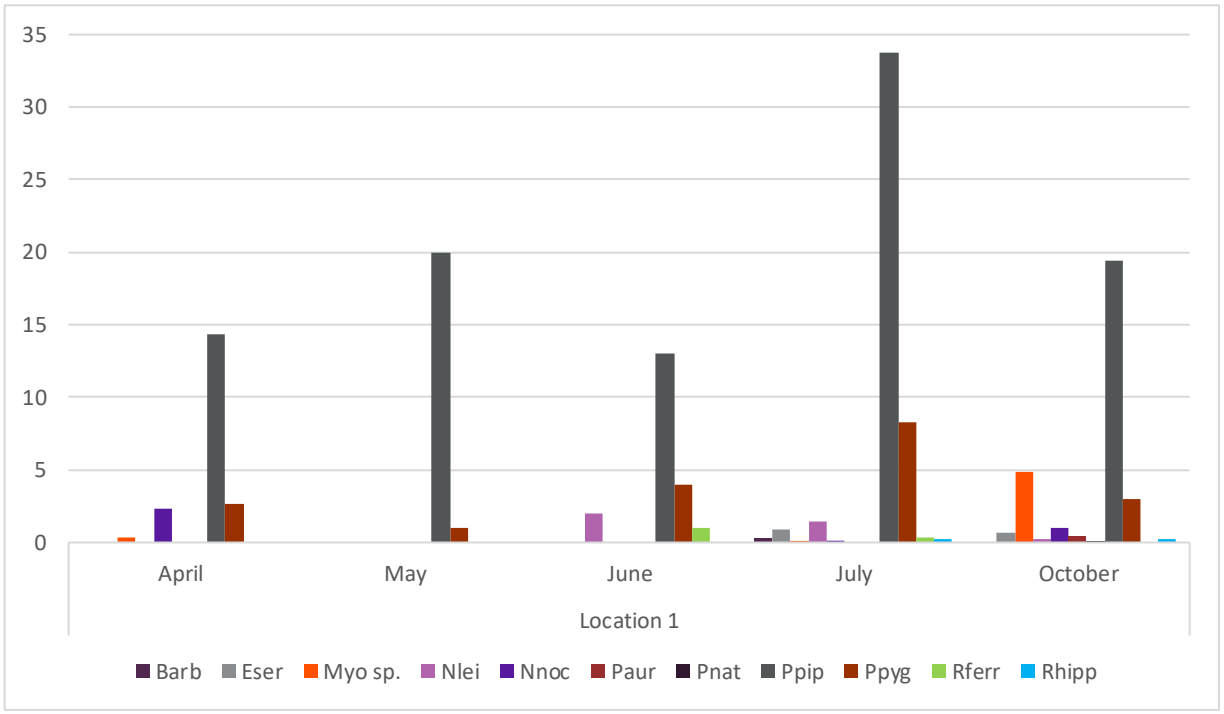
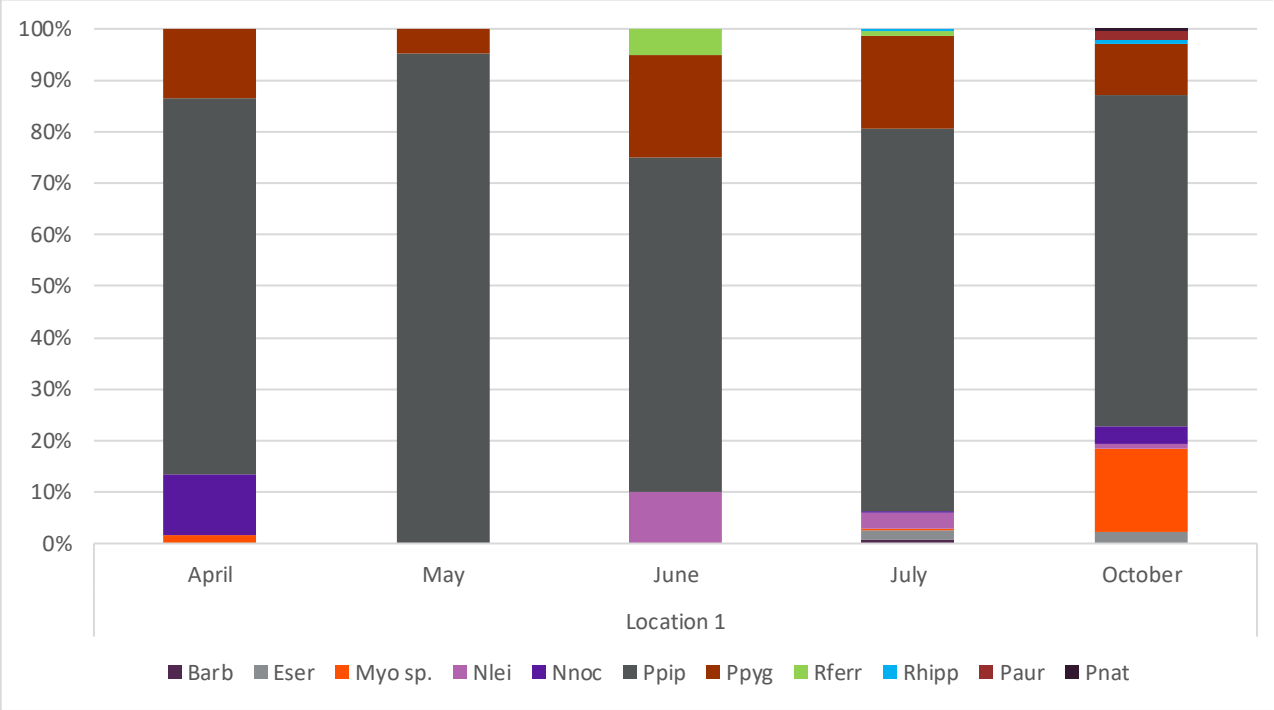


Table 7, "Proportional abundance per month"

	Barb	Eser	Myo sp.	Nlei	Nnoc	Paur	Pnat	Ppip	Ppyg	Rferr	Rhipp
April	0.00%	0.00%	1.69%	0.00%	11.86%	0.00%	0.00%	72.88%	13.56%	0.00%	0.00%
May	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	95.24%	4.76%	0.00%	0.00%
June	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	65.00%	20.00%	5.00%	0.00%
July	0.79%	1.89%	0.16%	3.14%	0.31%	0.00%	0.00%	74.21%	18.24%	0.79%	0.47%
October	0.00%	2.37%	16.11%	0.95%	3.32%	1.42%	0.47%	64.45%	9.95%	0.00%	0.95%

Figure 5, "Proportional abundance per month"



5.20. With reference to the guidance in Wray (2010), the site may be of up to National importance for commuting greater horseshoe and Bechstien's, county for lesser horseshoes but of District/Parish importance for the remaining species recorded here. Refer to **Table 7** below.

Table 8, "Site's value for commuting and foraging bats"

Species	Rarity	Number of bats	Roosts / potential roosts	Foraging Habitat characteristics	Importance / Score
Eser	Rarer (5)	Individual bats (5)	Moderate number/Not known (4)	Well-grown and well-connected hedgerows, small field sizes (4)	18 District / Parish
Myo sp.	Bechstien's (20) Other species (5)	Individual bats (5)	Bechstien's - Close to or within a SAC for the species (20) Moderate number/Not known (4) –	Well-grown and well-connected hedgerows, small field sizes (4)	49 National (Bechstien's) 18 District / Parish (other myotis species)
Nnoc	Rarer (5)	Individual bats (5)	Moderate number/Not known (4)	Well-grown and well-connected hedgerows, small field sizes (4)	18 District / Parish
Nyclei	Rarer (5)	Individual bats (5)	Moderate number/Not known (4)	Well-grown and well-connected hedgerows, small field sizes (4)	18 District / Parish
Pnat	Rarer (5)	Individual bats (5)	Moderate number/Not known (4)	Well-grown and well-connected hedgerows, small field sizes (4)	18 District / Parish
Ppip	Common (2)	Small number of bats (10)	Moderate number/Not known (4)	Well-grown and well-connected hedgerows, small field sizes (4)	20 District / Parish
Ppyg	Common (2)	Small number of bats (10)	Moderate number/Not known (4)	Well-grown and well-connected hedgerows, small field sizes (4)	20 District / Parish
Rferr	Rarest (20)	Individual bats (5)	Close to or within a SAC for the species (20)	Well-grown and well-connected hedgerows, small field sizes (4)	49 National
Rhipp	Rarer (5)	Individual bats (5)	Large number of roosts, or close to a SSSI for the species (5)	Well-grown and well-connected hedgerows, small field sizes (4)	19 County

Annexe II Species

Greater horseshoe

5.21. According to the Bat SAC guidance produced by Wiltshire Council, the site falls within the greater horseshoe 4km buffer associated with the Bath and BOA SAC.

5.22. The site is dominated by grassland, the majority of which is currently sheep grazed, and whilst sheep grazed fields tend to lead to poor species diversity within the grass sward, *Geotrupes spp* and *Aphodius* dung beetles live in sheep dung and offer a foraging resource to greater horseshoe bats, albeit not optimal when compared to cow grazed fields. Furthermore, the short sward providing *Melontha* (chafers) and *Tupilid (*craneflies*)* species a short grass to oviposit, thus providing a foraging resource in the summer months, albeit within the context of the wider area, it is unlikely to be an important foraging resource for greater horseshoes.

5.23. It is likely that greater horseshoes would use the site for commuting around Corsham, using the mature hedgerows and tree lines, particularly given the site is not artificially lit which would otherwise act as a deterrent should there be lighting (ILP, BCT 2023).

5.24. With regards to roosting opportunities, there are no structures on site which would meet lesser horseshoe roosting requirements.

5.25. According to the Corsham 'Batscape' Strategy, the closest greater horseshoe roost is approximately 1.13km south east of the site.

5.26. During the activity surveys, no greater horseshoe bats were recorded however, greater horseshoes were recorded in low numbers July and October on the static detector. This indicates that greater horseshoes are using the site when the young disperse from the females.

Lesser horseshoe

5.27. Lesser horseshoe bats typically forage within woodland, whilst there is a small area of secondary woodland on site, approximately 0.3ha, it is not likely to act as an important foraging resource due to the small extent, the lack of diverse age distribution and poor woodland structure. It is likely that lesser horseshoes would use the site for commuting, using the mature hedgerows and tree lines opposed to actively foraging on site, particularly given the site is not artificially lit which would otherwise act as a deterrent should there be lighting.

5.28. With regards to roosting opportunities, there are no structures on site which would meet lesser horseshoe roosting requirements.

5.29. According to the Corsham 'Batscape' Strategy, the closest lesser horseshoe roost is approximately 180m north east of the site.

5.30. During the activity surveys, no lesser horseshoe bats were recorded however, lesser horseshoes were recorded in low numbers in July and October on the static detector. This indicates that lesser horseshoes are using the site when the young disperse from the females.

Bechstein's

5.31. According to the Bat SAC guidance produced by Wiltshire Council, the site falls within the Bechstein's 1.5km buffer associated with the Bath and BOA SAC.

5.32. Bechstein's bat are typically associated with woodland habitats, characteristically oak-dominated, semi-ancient woodlands, often greater than 25 ha in extent, with a diversity of tree ages, a well-developed understorey and a diversity of vegetative structure. (Natural England 2023b). Whilst there is woodland present on site, it is limited in extent and does not meet the requirements typically associated with Bechstien's roosting preferences. It is possible that occasional male Bechstien's, which can roost singularly or in small groups and in suboptimal, may roost in trees on site should there be suitable roosting features. With regards to foraging opportunities, whilst the site is not currently artificially lit, Bechstein's tend to forage within/adjacent mature broadleaved woodland with a well-developed understorey near water courses, none of which is present on site. They can however, utilise hedgerows should it be connectivity between woodland blocks. Furthermore, Bechstien's have been found open foraging habitats were least preferred albeit they have been recorded crossing open fields in radio tracking undertaken in the local area. As such, it is unlikely this species would use the site as a foraging/commuting resource, particularly with suitable habitat within the wider landscape.

5.33. During the activity surveys, no Bechstein's bats were recorded, however *Myotis spp*. bats were recorded in April, July and October. It is recognised that Bechstein's bats calls are quiet in comparison to other bat species (Hill & Greenaway, 2006) as well as difficult to differentiate Myotis spp. species, as call structure for many of the Myotis species overlaps (e.g. Parsons & Jones, 2000). As such, it cannot be conclusively determined that Bechstein's are absent from the site.

5.34. According to the Corsham 'Batscape' Strategy, the closest Bechstein's roost is approximately 2.5km north west of the site.

Birds

5.35. There are hundreds of records for a wide range of bird species within 2km of the site. Relevant notable records include barn owl (*Tyto alba*), house sparrow (*Passer domesticus*), house martin (*Delichon urbicum*), starling (*Sturnus vulgaris*) and swift (*Apus apus*).

5.36. The hedgerows, woodland and scrub offer nesting and foraging opportunities for a wide range of bird species typically associated with gardens in a semi-rural environment, including notables such as house sparrow, dunnock (*Prunella modularis*) and wren (*Troglodytes troglodytes*) and common species such as robin (*Erithacus rubecula*) and wood pigeon (*Columba palumbus*).

Dormice

5.37. No records for dormice were returned in the data search and according to MAGIC the closest EPS mitigation licence for dormice is 3.2km south east of the site.

5.38. Within the hedgerow several woody species typically associated with dormice were recorded such as hazel and blackthorn, offering foraging, nesting, hibernation and commuting opportunities.

5.39. Whilst the extent of the hedgerows/woodland/scrub present on site is limited (i.e. the combined length of the habitats equates to approximately 455m) they link to further hedgerows and woodland immediately adjacent to the site boundaries. This adjacent habitat in turn provides connectivity to the wider landscape.

Hedgehogs

5.40. The data search returned 176 records for hedgehogs.

5.41. The site offers good habitat for hedgehogs with the woodland, scrub and hedgerows offering foraging, breeding, hibernating and commuting habitat which links to the wider landscape.

Invertebrates

5.42. A large number of records for terrestrial invertebrates within 1km of the site was returned. Notable species of relevance to the site include white-letter hairstreak (*Satyrium w-album*), small heath (*Coenonympha pamphilus*) and red-tailed (Hill) cuckoo bee (*Bombus rupestris*).

5.43. The habitats on site offer good foraging habitat for various notable species of invertebrate due to the herb diversity in the grassland and the range of species in the woodland and hedgerows, albeit restricted to low numbers due to the habitat extent.

Reptiles

5.44. Twenty one records for reptiles were returned in the data search for slow worm (*Anguis fragilis*), grass snake (*Natrix natrix*) and common lizard (*Zootoca vivipara*), with the closest record being for slow worm, 340m north of the site.

5.45. The habitats on site offer good habitat for slow worms, with the field edges and adjacent gardens but the open field has a grazed sward with limited sheltering habitat for them. It is assumed low numbers of slow worms are present within the site in suitable habitat.

EVALUATION AND IMPACT ASSESSMENT

Important Ecological Features

6.1. Based on the assessments undertaken to date, the following IEFs that may be affected by the Development are:

- Bath & BOA Bats SAC (and their qualifying features); and
- Commuting and foraging bats (all species).

6.2. In the absence of any avoidance or mitigation measures, the following significant impacts on IEFs could occur as a result of the development:

- Fragmentation of commuting and foraging routes of Bechstein's, lesser and greater horseshoe bats, which are qualifying features of the Bath & BOA SAC (closest component, Box Mine approximately 3km east of the site) due to habitat loss within the development site during the construction phase.
- Fragmentation of locally important commuting and foraging routes around the periphery of Corsham for common and notable bat species due to habitat loss within the development site during the construction and operational phase.
- Loss of foraging resource for greater horseshoe bats due to the change in land use i.e. end of sheep grazing on site during the construction and operational phase;
- Fragmentation of commuting and foraging routes of Bechstein's, lesser and greater horseshoe, the qualifying features of the Bath & BOA (closest component, Box Mine approximately 3km east of the site) due to artificial lighting within the development site during the operational phase.
- Fragmentation of locally important commuting and foraging routes around the periphery of Corsham for common and notable bat species due to artificial lighting within the development site during the operational phase.

Ecological Features Scoped Out

6.3. The following ecological features have been scoped out of this EcIA due to their size, because the area likely to be affected by the Development is of insufficient size or diversity to be of ecological value, and/or because there is no potential effect pathway between the Development and these features. These ecological features and their rationale have been identified in **Table 9**. Measures in line with the mitigation hierarchy are also included. Any legislative requirements relating to the protection of these ecological features, if required, are also detailed in **Table 9**.

Table 9, "Ecological Features Scoped Out"

Ecological Feature	Rationale for Scoping Out
Designated Sites (excluding statutory sites)	Non-statutory Sites The site's distance from the non-statutory designated sites and the scheme design is such that **no significant impacts on non-statutory designated sites are anticipated because of the Proposed Development.**
On site habitats	The site's habitats are both nationally and locally common and generally in poor condition. **As such no significant impacts are anticipated as a result of the Proposed Development.** A Construction and Environmental Management Plan (CEMP) will be implemented to prevent adverse impacts on retained habitats. The Proposed Development includes the enhancement of retained habitats such as woodland and grassland well as provision of new habitats such as new species rich grassland, native scrub and ornamental planting. Retained habitat enhancement measures comprise implementing a management regime with the long-term goal of improving the overall condition of those habitats and increasing species diversity. Whilst not meeting the requirements to be classified as a priority habitat on site, woodlands is listed as priority habitat on the LBAP thus the enhancement of the existing habitat and the creation of further woodland is meeting local objectives.
Bats - roosting	Several trees were found to have low bat roosting potential. However, likely to be limited to low numbers of bats only and of insufficient size or diversity to be of significant ecological value. **As such, no significant impacts on roosting bats are anticipated because of the Proposed Development.** As a precautionary measure, prior to any trees being felled for the development, update preliminary roost assessments will be undertaken to ensure the 'low' potential classification still remains valid. This should include the endoscope of any woodpecker holes which could be utilised by

Ecological Feature	Rationale for Scoping Out
	Bechstein's. In line with best practice, any trees with low potential will be subject to sectional felling. Should any trees be found to have moderate or high roosting potential, further surveys will be required. Full details to be provided in an agreed method statement/CEMP. The Proposed Development will include enhancement measures in the form of eight bat boxes, mounted on buildings and trees targeting crevice roosting bats such as soprano pipistrelle (listed on S41 of the NERC Act). Agreed designs comprise: • Five 1FR Schwegler Bat Box (or equivalent) • Three 1FF Schwegler Bat Box (or equivalent).
Bats - foraging bats (excluding greater horseshoes)	The habitats on site offer a foraging resource for a number of bats, primarily common pipistrelle. The habitats are sub-optimal for lesser horseshoes and Bechstein's bats, which would typically use other types of habitats (namely mature woodland or around riparian features). Within the wider context of the habitat availability found in the local area to the south, west and east of the site, the loss of the grassland habitat would have and insignificant effect as it is not a key foraging resource for the majority of bat species (with greater horseshoe excluded, refer to impact assessment below). **As such, no significant impacts are anticipated because of the Proposed Development.** Compensation measures are to be incorporated within the proposed develop as a result of the mitigation for greater horseshoe bats, including the provision of new suitable habitats designed to support a range of invertebrate species, acting as a foraging resource, which will be of benefit to other species of bat.
Badgers	The habitat on site provides limited opportunities for commuting and foraging badgers and there are no opportunities for sett building. Furthermore, due to the site being bound by roads and residential housing, it is unlikely the site would be being used for anything more than infrequent use. No evidence of badger using the site was recorded during the site visits. **As such, no significant impacts are anticipated because of the Proposed Development.** The Proposed Development will include enhancement measures for badgers as the woodland habitat on site isto be enhanced.
Birds	The site offers foraging and nesting opportunities for a variety species of bird in the form of woodland, trees and scrub albeit this habitat is limited in extent. Given extent and type of habitats currently present on site and considering the habitats in the context of the habitats available in the wider locale, the bird assemblage using this habitat is likely to be limited to common species or low numbers of notable species only and of insufficient size or diversity to be of significant ecological value. **No significant impacts on breeding birds are anticipated because of the Proposed Development.**

Ecological Feature	Rationale for Scoping Out
	The Proposed Development will include compensation for the habitat loss and enhancement measures for birds. This includes the provision of seven bird boxes on the new building and mounted on trees. Agreed designs comprise: • Ibstock Eco-habitat for Swifts is 4.5kg; and • Schwegler 1B nest box us 3.6kg Furthermore, the inclusion of suitable habitats for nesting and foraging comprising native plant species or one's of wildlife benefit would further enhance the site. In line with legislation, any removal of vegetation should take place outside nesting bird season. If this is not possible, a pre-commencement check should be undertaken. Full details to be provided in an agreed method statement/CEMP.
Dormice	The hedgerows offer opportunities for nesting, foraging, commuting and hibernating dormice. However, suitable habitat on site is limited, with the majority being located off-site in the form of further hedgerows and a small block of woodland. Whilst there is the potential that dormice use the hedgerows on site, it would be in extremely low densities, if at all (Bright & MacPherson, 2002). It is difficult to confirm presence or likely absence of dormice at these low densities. If dormice do use the site, the scale of their use would be of an insufficient magnitude to be of significant ecological value. The hedgerows and woodland is largely been retained, with a 10m strip of hedgerow removed for vehicular access and 3m strip of hedgerow removed for pedestrian access, both on the eastern boundary. As such, existing connectivity to the wider landscape is to be retained. **No significant impacts on hedgehogs are anticipated because of the Proposed Development.** It is recommended the removal of the hedgerow should be undertaken using a precautionary method of work and detailed in an agreed method statement / CEMP.
Hedgehog	The site offers foraging, commuting and hibernating opportunities for hedgehog within the woodland and scrub. However, any population present on site is likely to be of insufficient size or diversity to be of significant ecological value. **No significant impacts on hedgehogs are anticipated because of the Proposed Development.** The Proposed Development will include compensation for the habitat loss and enhancement of the retained habitats and the inclusion of native plant species or one's of wildlife benefit.

Ecological Feature	Rationale for Scoping Out
Invertebrates	The site offers, foraging opportunities for terrestrial invertebrates. However, the species assemblage is likely to be predominantly common species with only low numbers of notable species using the site given the lack of overall plant species diversity and extent of the site. Any population(s) present on site is likely to be of insufficient size or diversity to be of significant ecological value. **No significant effects are anticipated from the Proposed Development.** The Proposed Development will include compensation for the habitat loss and enhancement measures for terrestrial invertebrates. This will include the enhancement of retained habitats, the provision suitable foraging habitats comprising native plant species or one's of wildlife benefit such as species rich grassland and log pile.
Reptiles	The site offers foraging, commuting and hibernating opportunities for common species of reptile in the form of scrub, woodland and grassland. However, given the site's extent and fragmentation from the wider landscape due to the presence of the surrounding roads it is unlikely any large populations are present on site. It is assumed that low numbers of slow worm are present on site. **No significant effects on reptiles are anticipated from the Proposed Development.** The Proposed Development will include compensation for the habitat loss and enhancement measures for common species of reptiles (listed on S41 of the NERC Act). This includes the provision of suitable habitats comprising native plant species or one's of wildlife benefit and a reptile hibernaculum/log pile. In line with legislation, sensitive clearance in suitable habitat should be undertaken. Full details to be provided in an agreed method statement/CEMP.

Impact Assessment

6.4. Statutory Sites (Bath and BOA Bats SAC and their qualifying features) and commuting / foraging bats have been identified as the only IEF anticipated to be affected by the Proposed Development. Therefore, an impact assessment is provided in this section.

6.5. As per best practice, a proportional and pragmatic approach has been employed in this assessment. To avoid and/or minimise potential negative effects on the identified IEFs, the measures in line with the mitigation hierarchy below will be incorporated within the Development. The resulting residual effect is also provided.

6.6. The direct potential impact of habitat loss, and the indirect potential impact of artificial lighting on the two SACs qualifying features and on commuting and foraging bats of other species both result in potential effects, and as such, they are being dealt concurrently in this assessment.

Direct impact – Fragmentation of commuting and foraging habitats due to permanent habitat loss (loss of a section of hedgerow with trees)

Impacts

6.7. Whilst tree and hedgerow loss has been minimised as far as possible, a 10m strip of mature hedgerow with trees is to be removed to provide vehicular access and a 3m strip of hedgerow is to be removed to provide pedestrian access along the eastern boundary.

6.8. Low numbers of greater and lesser horseshoes have been recorded on the site in July, it is therefore likely this linear feature is used on an occasional basis when the young are dispersing from the females.

6.9. Whilst it is located adjacent to a road and therefore subject to occasional disturbance by traffic, given there is no street lighting, the boundary is still a dark corridor. It is likely to be used at low levels to traverse the site, albeit given the location of this boundary, it is likely to be used less than other linear features on site as there is limited green infrastructure further along to the north of the site, which leads in to Corsham itself.

6.10. Whilst this boundary feature falls outside the identified 'direct mitigation routes' and 'strategic flyways' as per the Corsham BatScape Strategy, it is classified as 'connective habitats'.

6.11. Whilst the break in the vegetation would result in a fragmentation barrier, the site itself and the habitats are still functionally linked to the wider landscape and further commuting and roosting habitat. Furthermore, research indicates greater horseshoe bats would fly across gaps of up to 38m wide with no significant change in the use of a hedgerow feature (Pinaud et all, 2018), and therefore a 10m gap is likely to have a minor effect on the commuting/foraging behaviours of bat species.

6.12. It is assessed, in the absence of mitigation, there would be a **permanent, slight, negative impact at a local level** on commuting / foraging common and notable species of bats and those associated with the SAC.

Mitigation

6.13. In line with planning policy and best practice, the agreed measures to minimise any negative impacts comprises:

- Compensation and enhancement measure to be implemented via new planting and sensitive management of retained vegetation prior to the construction phase, improving condition and structure of those habitats, particularly along the western and southern boundary which links the eastern boundary to the southern linear features and the wider landscape.

Residual effects

6.14. Given the western and southern boundary is to be enhanced to strengthen the commuting link, allowing the bats to still navigate around the site and south to the wider area, it is assessed that there would be a **neutral** impact as a result of the habitat loss along the eastern boundary.

Direct impact - Loss of foraging resource for greater horseshoe bats due to the change in land use i.e. end of sheep grazing on site

Impacts

6.15. Greater horseshoe bats have been recorded using the site in July and October indicating the site is used during the dispersal period after the young leave the females. The grassland is currently sheep grazed and supports the prey of greater horseshoe bats and as part of the proposed development, the grazed field is to be lost.

6.16. The grassland on site has been identified as 'grass cropping and pasture' on the Batscape document (reproduced in **Figure 6**). **Figure 6** sets out other areas of 'grass cropping and pasture' within the vicinity of the site. The site makes up a small proportion of the total habitats available.

6.17. It is assessed, in the absence of mitigation, there would be a **permanent, slight, negative impact at a local level** on foraging greater horseshoe bats.

Mitigation

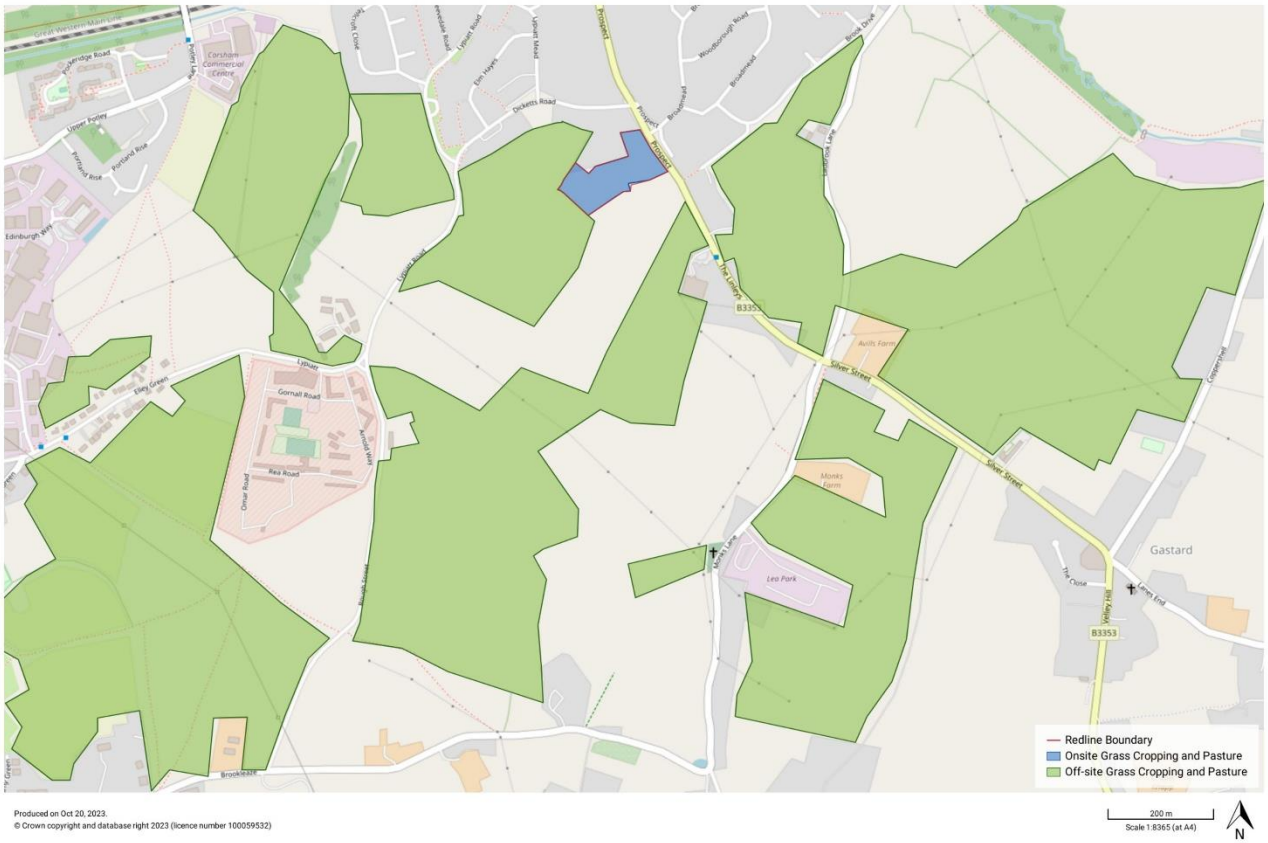
6.18. In line with planning policy and best practice, the agreed measures to minimise any negative impacts comprises:

- Provision of new replacement habitat including:
    - Tree and hedgerow planting;
    - Species rich wildflower grassland;
    - SUDs basin which will be damp the majority of the year; and
    - Enhancement to the existing woodland, hedgerows and trees.

Residual effects

6.19. Given the mitigation strategy set out above, it is assessed that there would be a **neutral** impact as a result of the foraging habitat loss for greater horseshoe bats.

Figure 9, "Reproduction of the BatScape Strategy Phase 2, SW Section Map"



Indirect fragmentation of commuting and foraging routes of bats and those species associated with the Bath and BOA SAC due to artificial lighting within the development site during the operational phase.

Impacts

6.20. The site is unlit, therefore not currently causing disturbance to commuting and foraging bats, particularly light sensitive species such as Bechstein's, lesser and greater horseshoe bats.

6.21. The static bat detector and transect survey results showed the site supported several species of commuting and foraging bat including, light sensitive species such as lesser and greaterhorseshoe bats.

6.22. As a result of the Proposed Development, the artificial lighting may result in a **permanent, slight, negative** impact at a **local** level on commuting / foraging common and notable species of bats and those associated with the SAC, potentially cumulating in certain species of bat not using the site to commute around Corsham to the wider landscape.

Mitigation

6.23. A sensitive lighting strategy is to be incorporated within the development to avoid and minimise any negative impacts where practicable. The following measures will be employed:

- Implementation of those principles from the Corsham BatScape Strategy, creating dark zones across the green infrastructure around the boundaries of the site to ensure the commuting and foraging routes across the site are maintained to allow the bats move around the site (Figure 11).
- Implementation of those Principals from Guidance Note: 08/18 Bats and Artificial Lighting in the UK have been incorporated such as lighting is to be directed away from ecological features, the use of photocells, 'warm light' and use of LED luminaires.

6.24. **Figure 10** sets out the LUX plots for the proposed lighting scheme. Refer to 3075-DFL-ELG-XX-RP-EO-13001-S3-P04 for the full lighting strategy accompanying the planning application. Please note, this model is the worst case scenario and does not include the implementation of the shields to prevent light spill to the rear of the light. Refer to the lighting strategy for further information.

Residual effects

6.25. When considering the agreed measures employed to avoid and mitigate negative impacts resulting from the artificial lighting on the habitat providing foraging and commuting opportunities for bats, it is assessed that the residual effect would be a **neutral** impact.

Figure 10, "Extract of proposed lighting scheme with LUX plots"



CONCLUSIONS

7.1. The EcIA process has identified three IEFs, commuting bats including Annex 2 species (Bechstein's, lesser and greater horseshoe), and Bath and BOA SAC and foraging greater horseshoe. Potentially significant impacts include the loss of commuting and foraging habitats and the effects from the artificial lighting strategy on those habitats, resulting in an impact on the commuting and foraging routes around Corsham.

7.2. When considering the agreed measures to avoid and mitigate any negative effects and those that will enhance the site, there will be no residual significant effect on any IEF. Those measures comprise:

- Implementation of buffer habitat, maintaining the integrity of the identified commuting features and appropriately manage those habitats to maximise biodiversity benefits;
- Enhancements to existing, retained habitat and appropriately manage those habitats to maximise biodiversity benefits;
- Sensitive lighting strategy.

7.3. Ecological features that fall outside of the formal process of identifying significant ecological effects will nevertheless be protected and enhanced as per the measures in **Table 9**.

7.4. Those measures described in paragraphs 7.2 and 7.3 ensure that planning policies and legislative requirements are being met.

7.5. With regards to biodiversity net gain, given the mandatory requirement for a 10% biodiversity net gain has not yet been implemented, it is considered that Wiltshire Core Policy 50 (Biodiversity and biodiversity) is the policy driver for this assessment. Given the proposed ecological mitigation and enhancement measures (including the creation of artificial habitats and landscaping strategy to maximise wildlife benefit) agreed to be implemented, it is considered that this development meets the policy requirements for net gain in biodiversity.

7.6. Should the requirement for 10% biodiversity net gain be adopted by legislation, off-site land has been secured off-site to meet the requirements.

7.7. An Ecological Parameters Plan (EPP) has been produced to accompany the outline planning application (**Figure 11** below).

Figure 11, "Ecological Parameters Plan"



REFERENCES

BS 42020:2013 Biodiversity – Code of Practice for Planning and Development.

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